

# Interdisciplinary Hepatitis C Treatment Program in a Primary Care Setting

Presented by

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# Financial Disclosures

- LCDR Jonathan Owen
  - None
- LT Neelam Gazarian
  - None

# Objectives

- Discuss the HCV virus and impact on Native American Population
- Discuss epidemiology of Hepatitis C in Indian Country
- Review screening methods and procedures when diagnosing between acute and chronic Hepatitis C
- Discuss new therapeutic options for treatment of chronic HCV
- Recognize and assess clinical significance of common drug-drug interactions
- Demonstrate how to establish a pharmacy managed HCV clinic

# What is the Hepatitis C Virus?

A small, (55-65 nm) enveloped, single stranded RNA virus

7 major genotypes

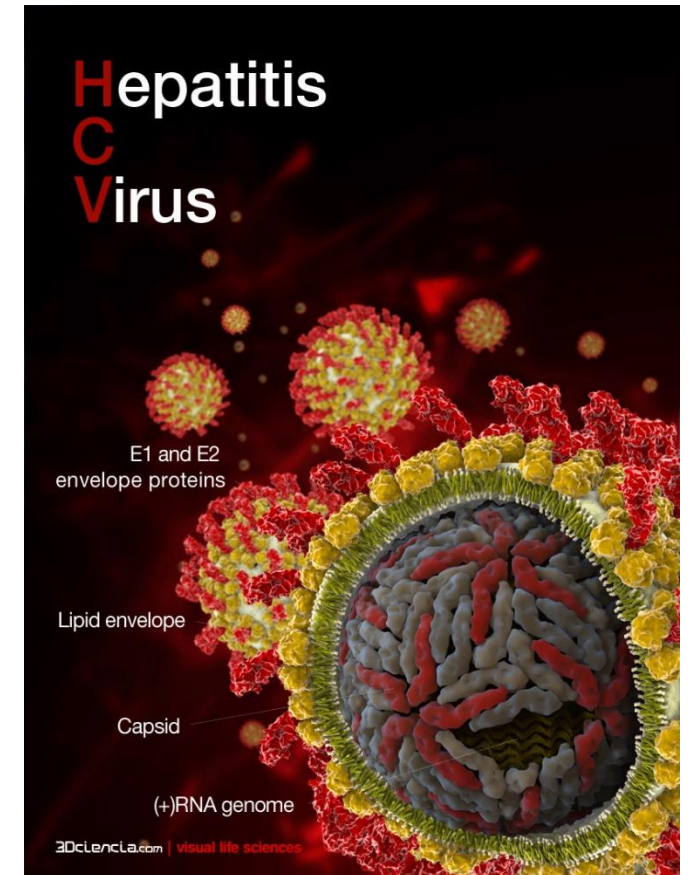
Half life in serum ~ 45 minutes-3 hours

Each cell produces 50 virions daily

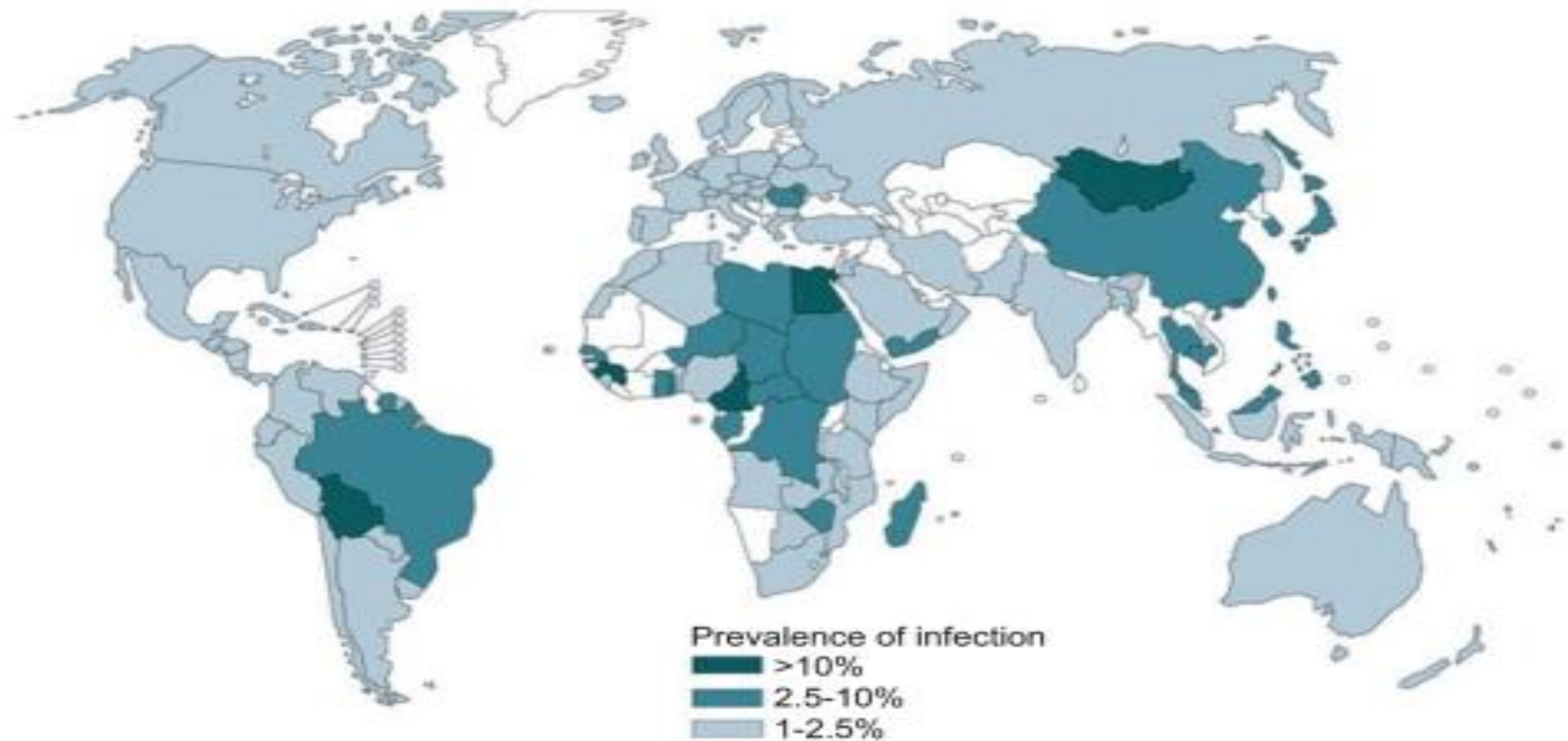
- $10^{12}$  virions produced each day, mainly in the hepatocytes of the liver

Utilizes phosphoprotein NS5A and viral RNA-dependent RNA polymerase NS5B

- Target molecules with current treatments



# Hepatitis C As a Global Health Problem



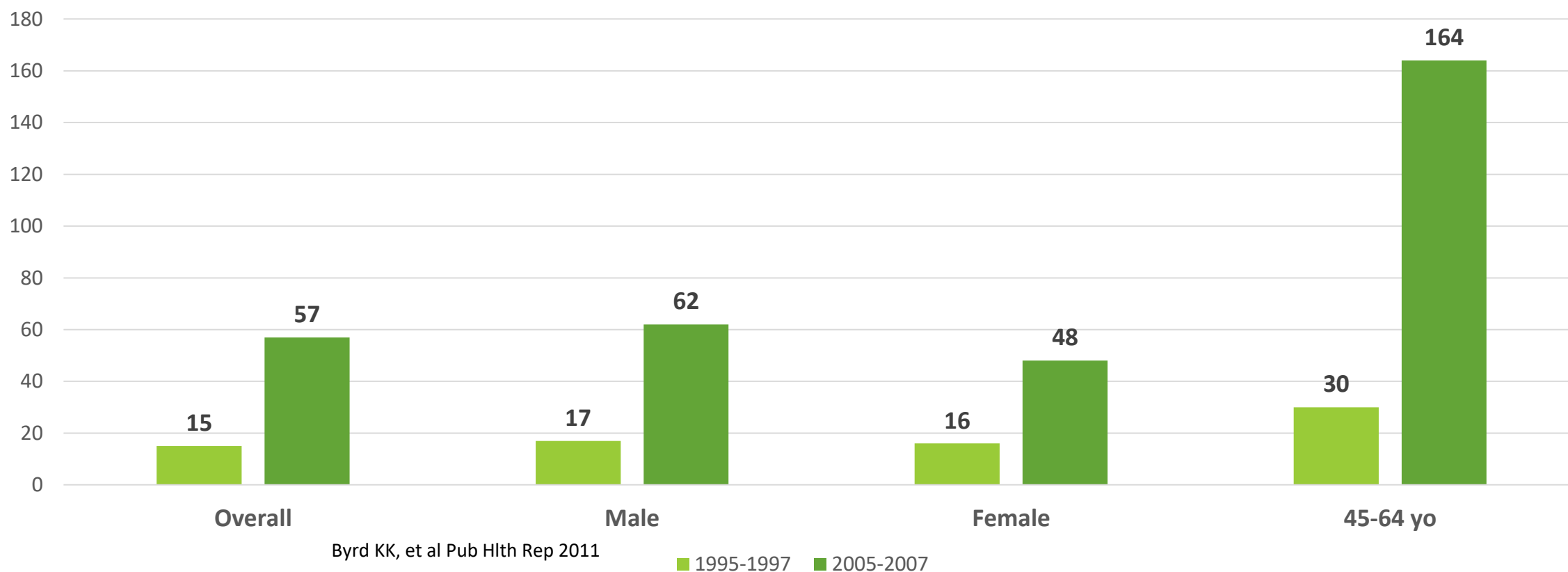
Data from International Travel and Health [Internet]. Geneva: World Health Organization; 2007 [cited 2009 Mar 11]. Available from: <http://www.who.int/ith/maps/hepatitisc2007.jpg>

# HCV Incidence

- 30,500 estimated new infections
- IHS just over 2,000 per year
  - Not a true incidence but rather 'new diagnoses'
- 33,937 HCV+ patients
  - 1,527 born before 1945
  - 18,482 born 1945-1965
  - 13,928 born after 1965

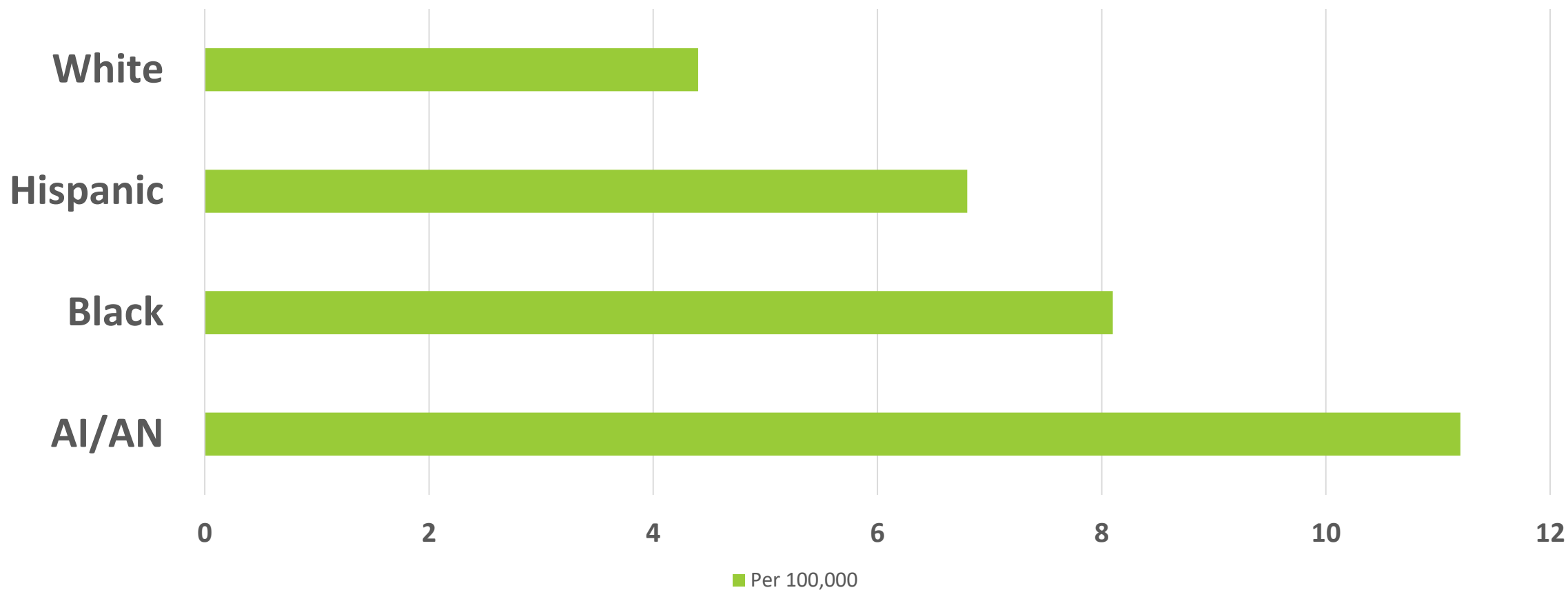
# HCV Hospitalization

300% Increase in related Hospitalization for AI/AN – 1995-2007  
(per 100,000 persons)



# HCV Related Mortality

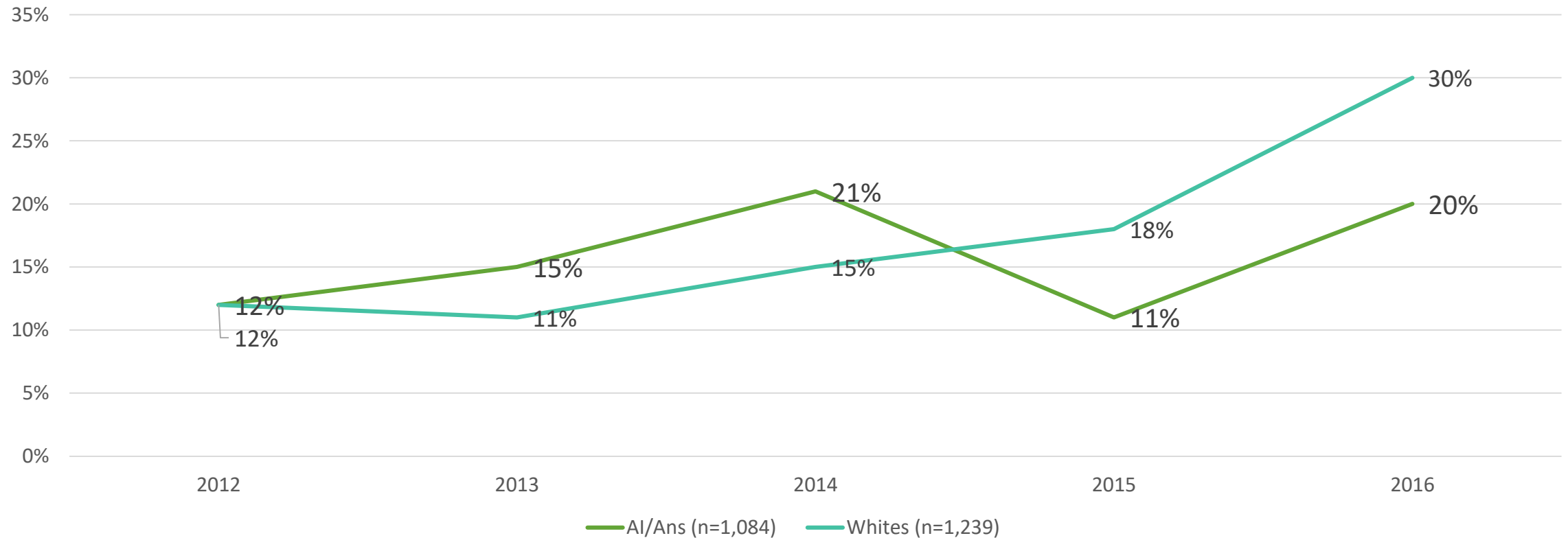
By race/ethnicity, 2014



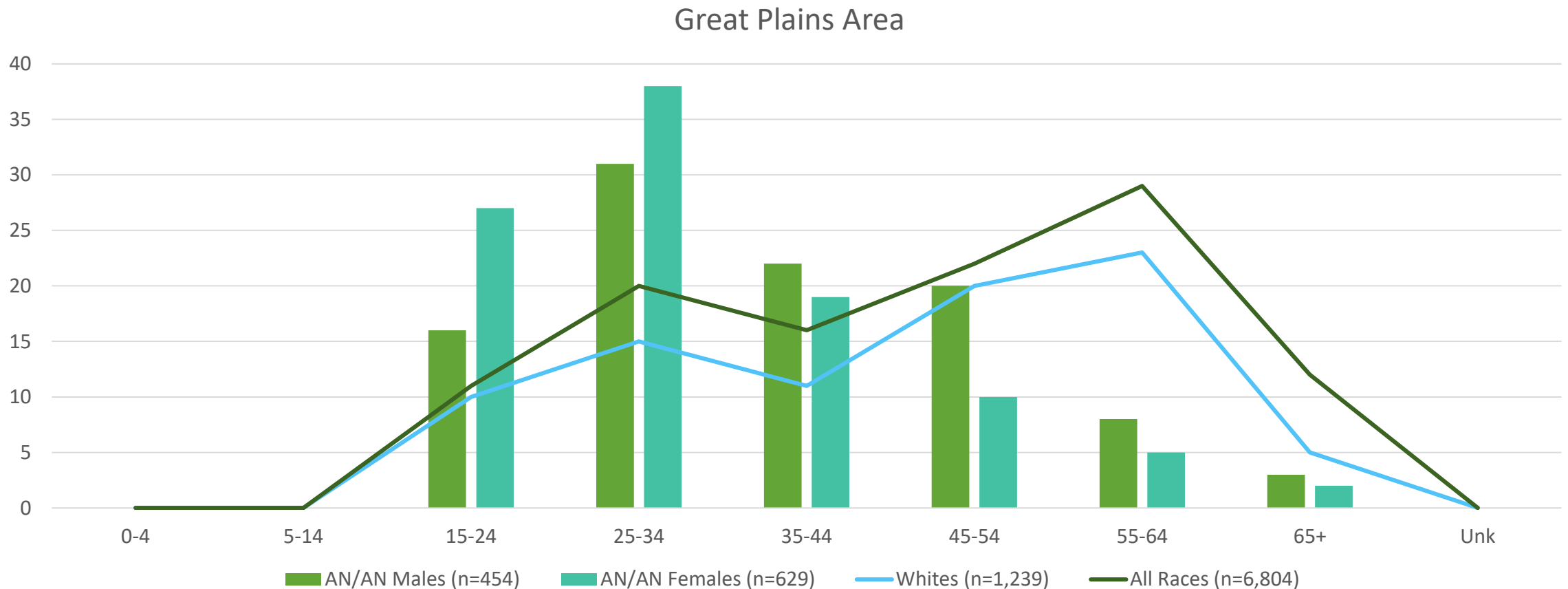


# Epidemiology: Hepatitis C In the Great Plains NE, ND, and SD - Percent of Cases Per Year by Race (2012-2016)

Great Plains Area



# Epidemiology: Percent of Cases Per Race & Sex by Age Group by Race (2012-2016)



# Risk Factors for HCV Infection

Born between 1945-1965

- 1 in 30 baby boomers has HEP C

Blood transfusion or organ donation prior to 1992

Current or former IV drug use

Chronic hemodialysis

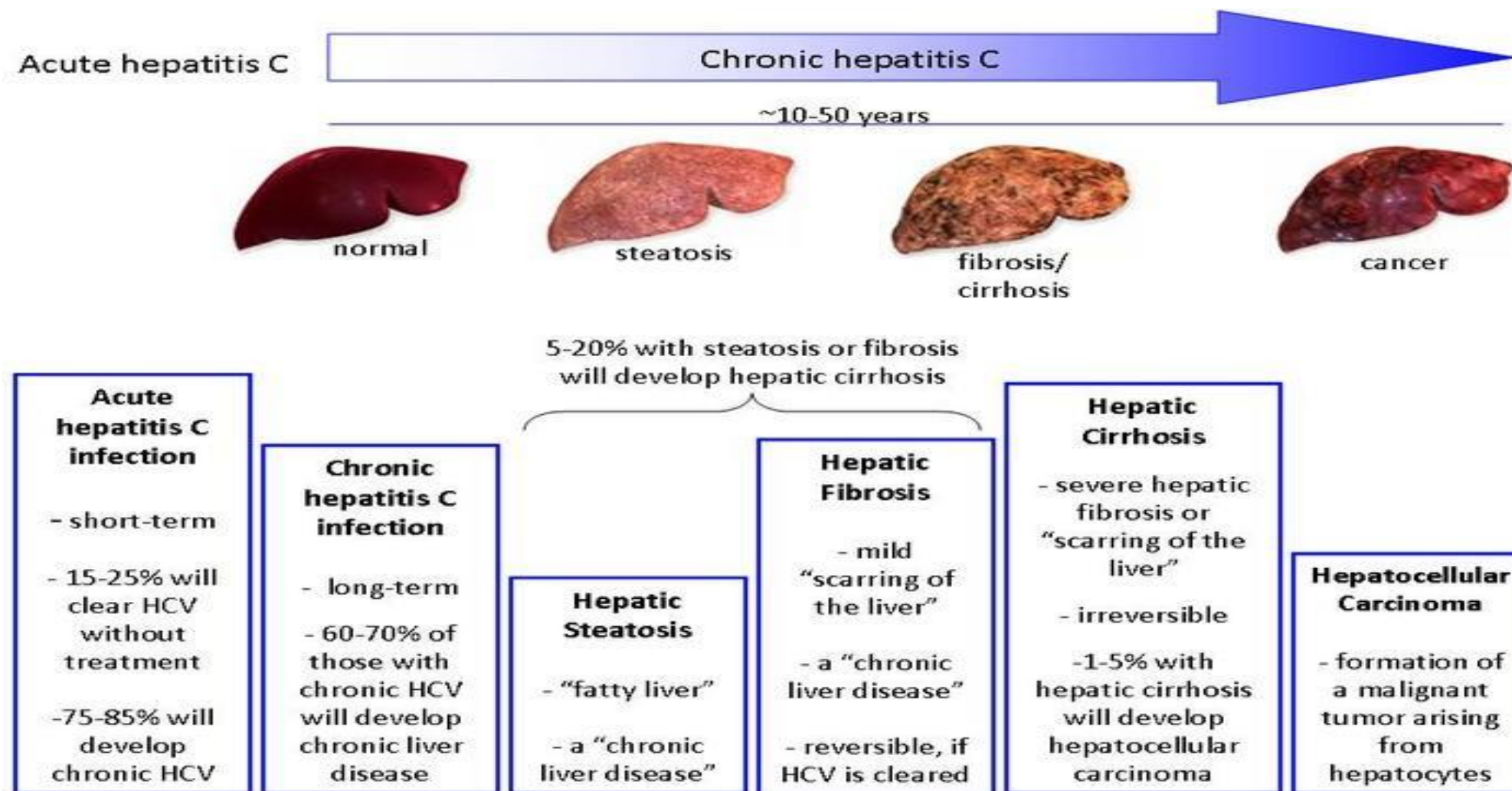
Any known blood exposure to HCV-positive blood

Persons with HIV

Children born to HCV infected mother

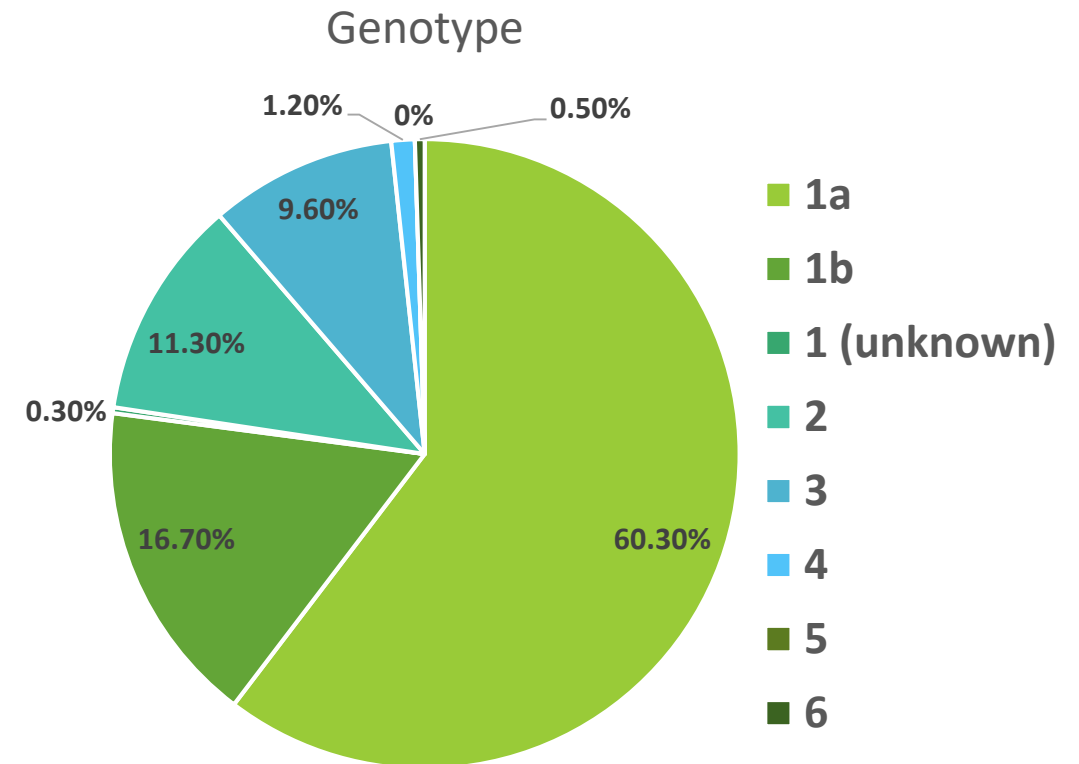
- 4-7%

# Natural progression following Initial infection with HCV



# Hepatitis C Genotypes

- Genotype 1
  - GT 1b different than GT 1a
- GT 3 associated with higher mortality



# Signs and Symptoms

## In absence of Cirrhosis

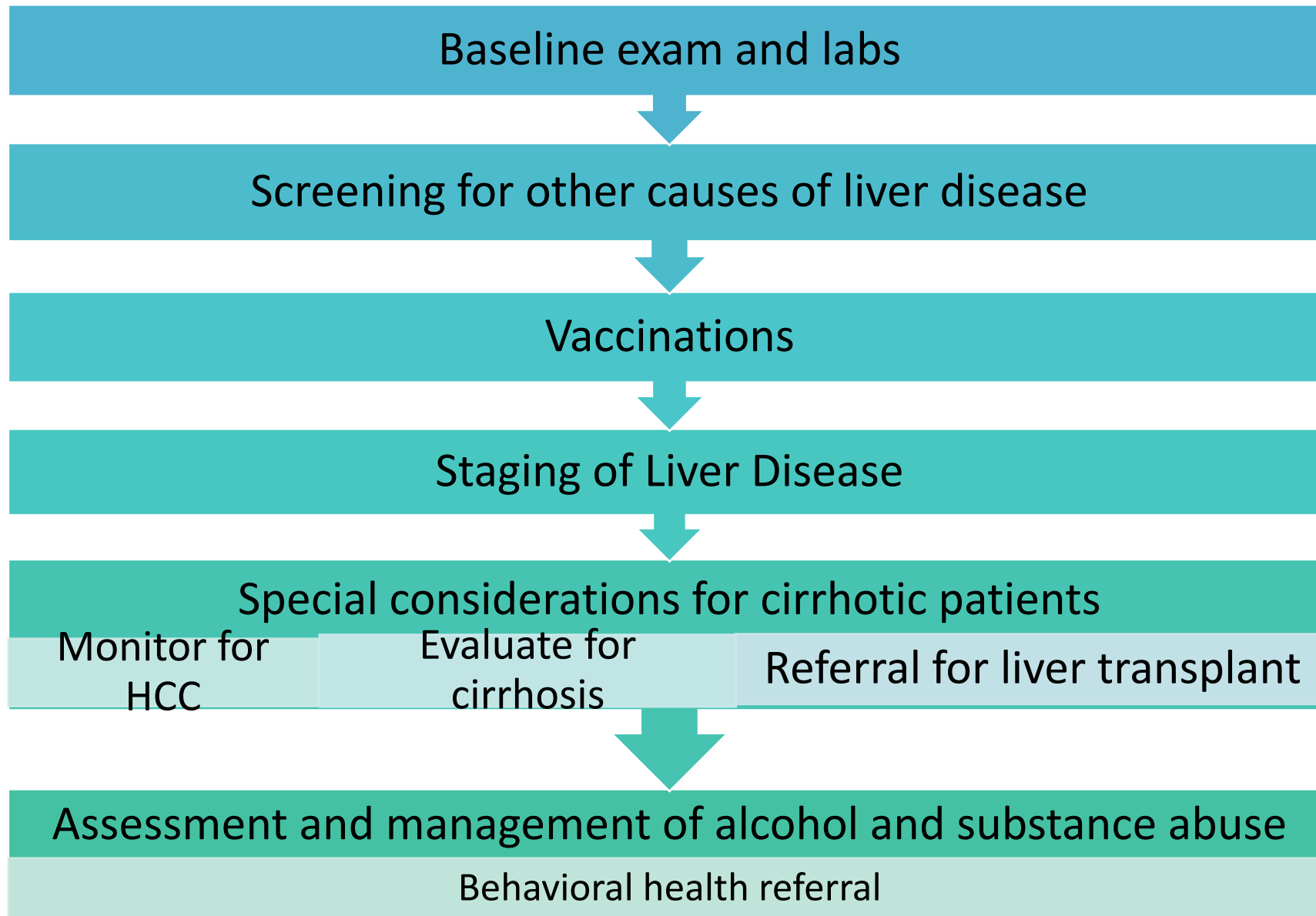
- Fatigue
- Impaired cognitive function (brain fog)
- Migratory arthralgia or myalgia
- Depression
- Decreased appetite/weight loss
- Acute liver failure rare

## Extrahepatic Manifestations of chronic HCV

- Thrombocytopenia
- Renal disease
- Lymphomas
- Neuropathy
- Dermatologic manifestations
- Diabetes
- Neurological impairments
- False positive rheumatoid factor
- Pancreatic cancer

- Mixed cryoglobulinemia
- Psoriasis/Pruritus

# Evaluations of Patients with Chronic HCV



# Baseline Studies in Chronic HCV

## Basic blood tests

- Comprehensive metabolic panel
- Complete blood count with differential
- INR
- Vitamin D 25-OH
- Pregnancy test

## Liver function test

- Liver enzyme function tests
- total and direct bilirubin
- serum albumin
- Liver Fibrosis (Echosens) test

## Hepatitis and HIV tests

- HCV genotype and subtype
- Quantitative HCV RNA
- HIV Antibody
- Hepatitis A serology (IgG or total)
- Hepatitis B serology (HBsAG, anti-HBs, anti-HBc)

## Miscellaneous and Imaging

- Alpha-fetal protein (AFT)
- Abdominal ultrasound



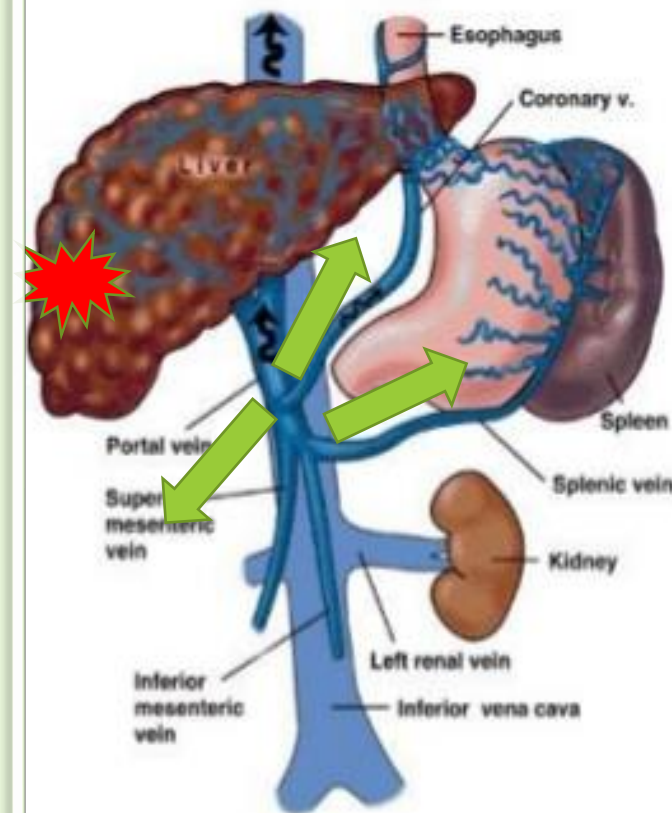
# Baseline Studies

## CBC w/differential

- Thrombocytopenia (<150 thousand)
- Neutropenia
  - Cirrhosis causes BMS

## Liver Panel

- AST or ALT
  - <30 IU/mL for men
  - <19 IU/mL for women
  - ↑Bilirubin
- Synthetic function
  - ↓Alb    ↑INR



# Baseline Studies

## HCV tests

- GT and subtype
- Quantitative
- Decide duration
- Acute vs Chronic

## Hepatitis A&B

- Revaccination
- HBV reactivation
  - 24 cases
  - Unknown mechanism

## Others

- HIV Antibody
- AFP
- Abdominal u/s-spleen size
  - Cirrhosis
  - HCC

# Vaccinations

Hep A

- 0 and 6-18 months

Hep B

- 0, 1-2 and 6-28 months

Twinrix

- 0, 1 and 6 months

# Staging of Liver Disease

Suggestive of Advanced Fibrosis/Cirrhosis

Presence or history of ascites or esophageal varices

Low platelet count ( $<150,000 \text{ mm}^3$ )

APRI  $\geq 1.0$

FIB-4  $\geq 3.25$

Fibrosure  $\geq 0.72$

Imaging/scanning with evidence of cirrhosis

Liver biopsy with F3 or F4 fibrosis

# Staging of Liver Disease: APRI, FIB-4 Score

$$\text{APRI} = \frac{\frac{\text{AST Level (IU/L)}}{\text{AST (Upper Limit of Normal) (IU/L)}}}{\text{Platelet Count (10}^9\text{/L)}}$$

x 100 =

$$\text{FIB-4} = \frac{\text{Age (years)} \times \text{AST Level (U/L)}}{\text{Platelet Count (10}^9\text{/L)} \times \sqrt{\text{ALT (U/L)}}}$$

# Staging of Liver Disease: Child-Pugh Classification of Cirrhosis

- Class A: Mild dysfunction
  - 5 to 6 points
  - 100% 1 year survival
- Class B: Moderate dysfunction
  - 7 to 9 points
  - 80% 1 year survival
- Class C: Severe dysfunction
  - 10-15 points
  - 45% 1 year survival
- Calculated only for patients with cirrhosis or suspected

Factor	1 point	2 points	3 points
Total bilirubin (μmol/L)	<34	34-50	>50
Serum albumin (g/L)	>35	28-35	<28
PT INR	<1.7	1.71-2.30	>2.30
Ascites	None	Mild	Moderate to severe
Hepatic encephalopathy	None	Grade I-II	Grade III-IV (or refractory)

# Staging of Liver Disease: Liver Biopsy

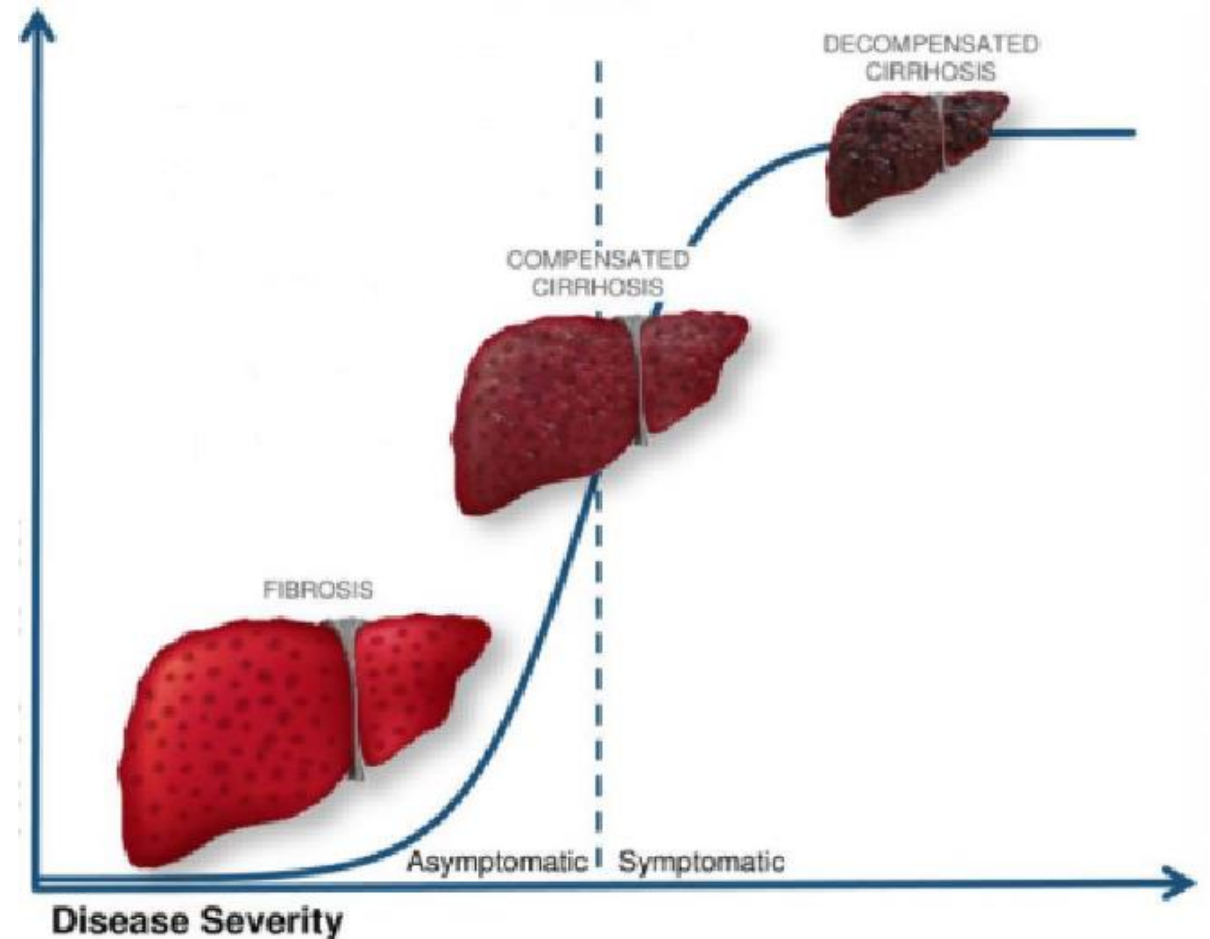
- No longer considered gold standard
- Invasive procedure
- Expensive
- Poor patient acceptance
- Interpretation has significant variability



# Staging of Liver Disease: Cirrhosis

Development of complications between compensated and decompensated cirrhosis

- Variceal hemorrhage
- Ascites
- Encephalopathy
- Jaundice





# Staging of Liver Disease: Cirrhosis

- Median survival
  - Compensated: 9 years
  - Decompensated: 1.6 years
- Patients with a score of 15 or greater should be considered for evaluation of liver transplant

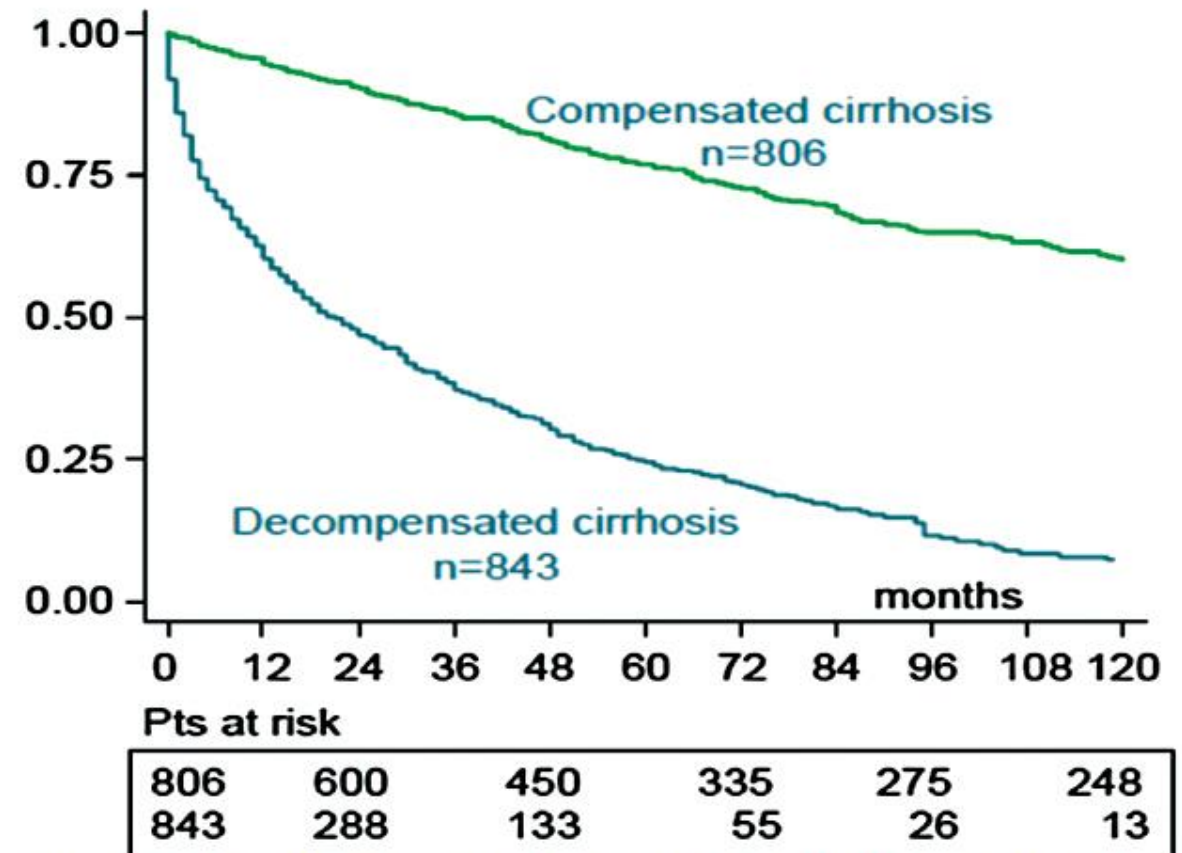


Figure 1. Survival of compensated versus decompensated cirrhosis at diagnosis. (From D'Amico G, Garcia-Tsao G, Pagliaro L. Natural history and prognostic indicators of survival in cirrhosis: a systematic review of 118 studies. *J Hepatol* 2006;44:219.)

# Alcohol and On-going Substance Abuse

- NOT indicated to withhold HCV therapy based on active alcohol or substance use
- Patients may be referred to behavioral health of substance abuse treatment before and during HCV management

# Protecting the Liver

- Coffee and tea may be liver protective
- Statins may be hepatoprotective and even may decrease risk of HCC
- Tobacco: Can increase risk of hepatocellular carcinoma.
- Marijuana: chronic use associated with increased fibrosis
- Alcohol: hepatotoxic

# HCV Therapy: Goals



## Cure

- Defined as sustain Virologic response (SVR)
- No detectable viral RNA three months post completion of treatment

## Improvements in liver function

- Decreased fibrosis, potentially reversal of cirrhosis

## Improvements in extrahepatic manifestations of HCV

## Improved glycemic control, decreased insulin resistance

## Quality of life!

# HCV Therapy: Old vs New

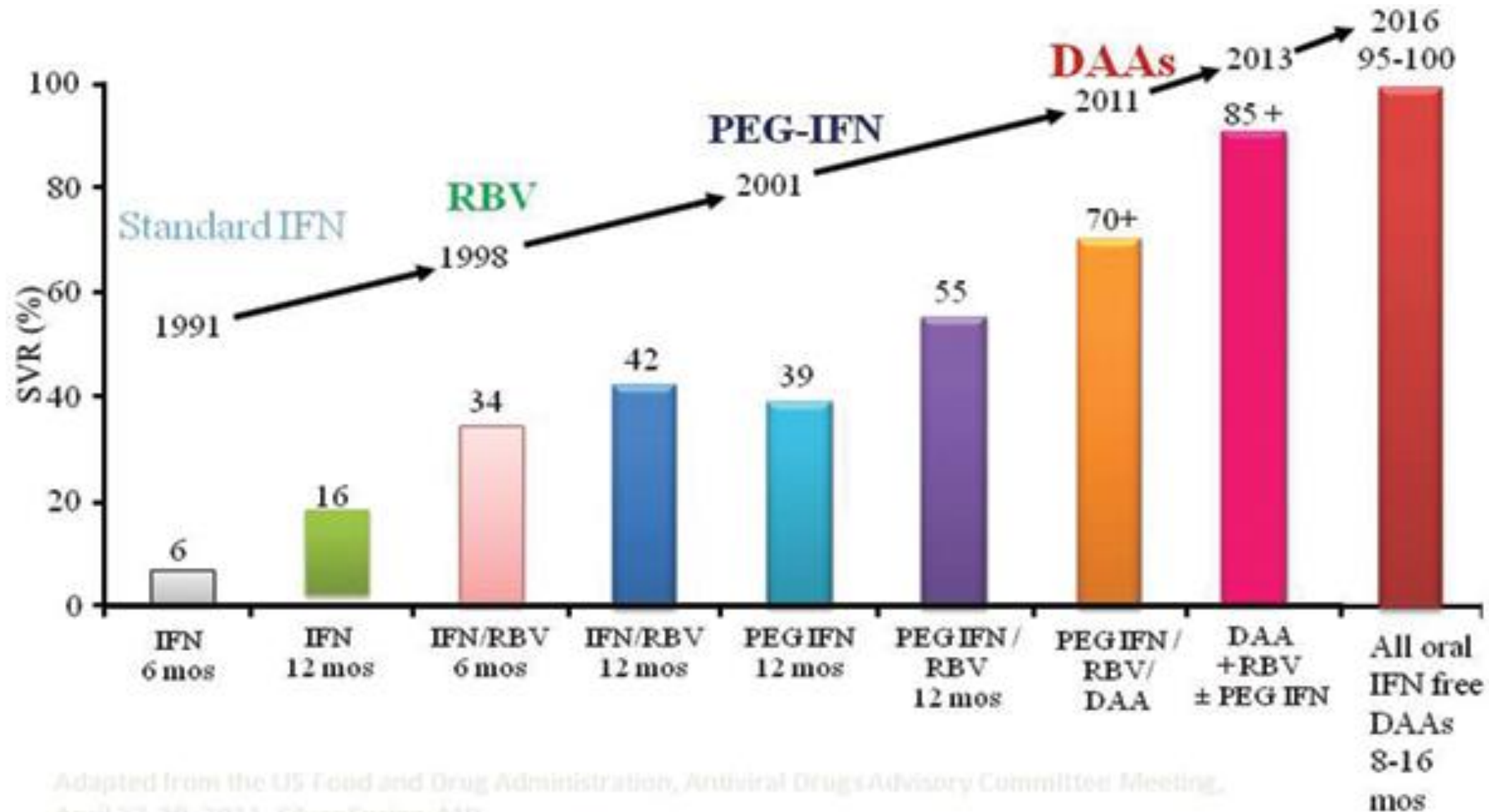
## Interferon Based

- Injectable
- Long duration of treatment: 6 to 12 months
- High side effect profile
  - Fatigue, alopecia, neutropenia, insomnia, depression
- Low cure rate
  - 10-50%

## Direct Acting Antivirals

- Oral
- Shorter durations: 2-3 months
- Minimal side effects
  - N/V, muscle weakness
- High cure rates: >99%

# HCV Therapy: Old vs New



Adapted from the US Food and Drug Administration, Antiviral Drugs Advisory Committee Meeting, April 27-28, 2013 - Silver Spring, MD.

# HCV Direct Acting Antivirals (DAAs)

Target	NS3/4A: Protease Inhibitors (-previr)	NS5A: Replication Complex Inhibitors (-asvir)	NS5B: Polymerase Inhibitors (-buvir)
	Glecaprevir	Ledipasvir	Sofosbuvir
	Voxilaprevir	Pibrentasvir	
		Velpatasvir	

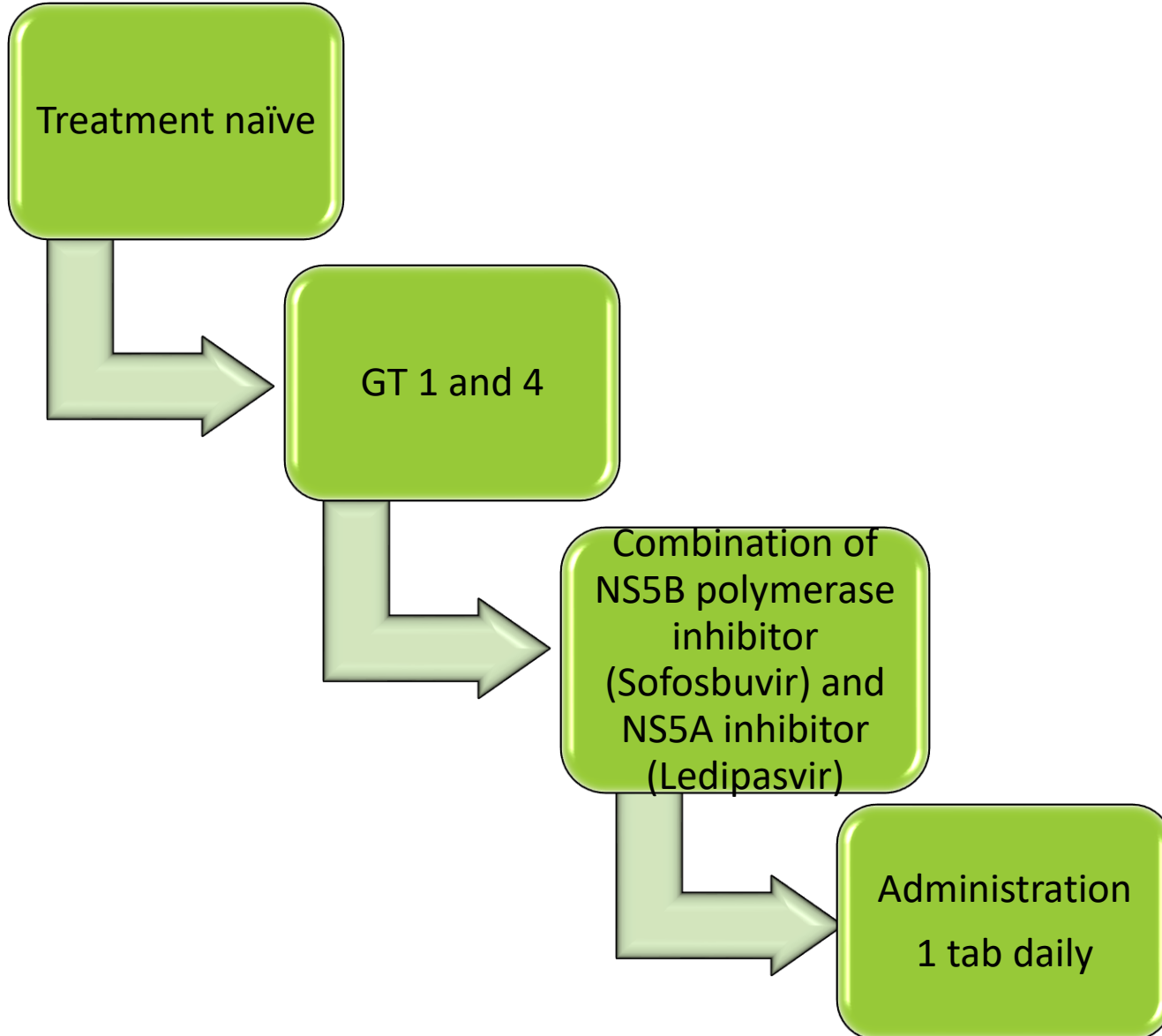
Harvoni® - Ledipasvir/Sofosbuvir

Epclusa® - Sofosbuvir/Velpatasvir

Mavyret® - Glecaprevir/Pibrentasvir

Vosevi® - Sofosbuvir/Velpatasvir/Voxilaprevir

# HCV Therapy: Ledipasvir/Sofosbuvir Harvoni®

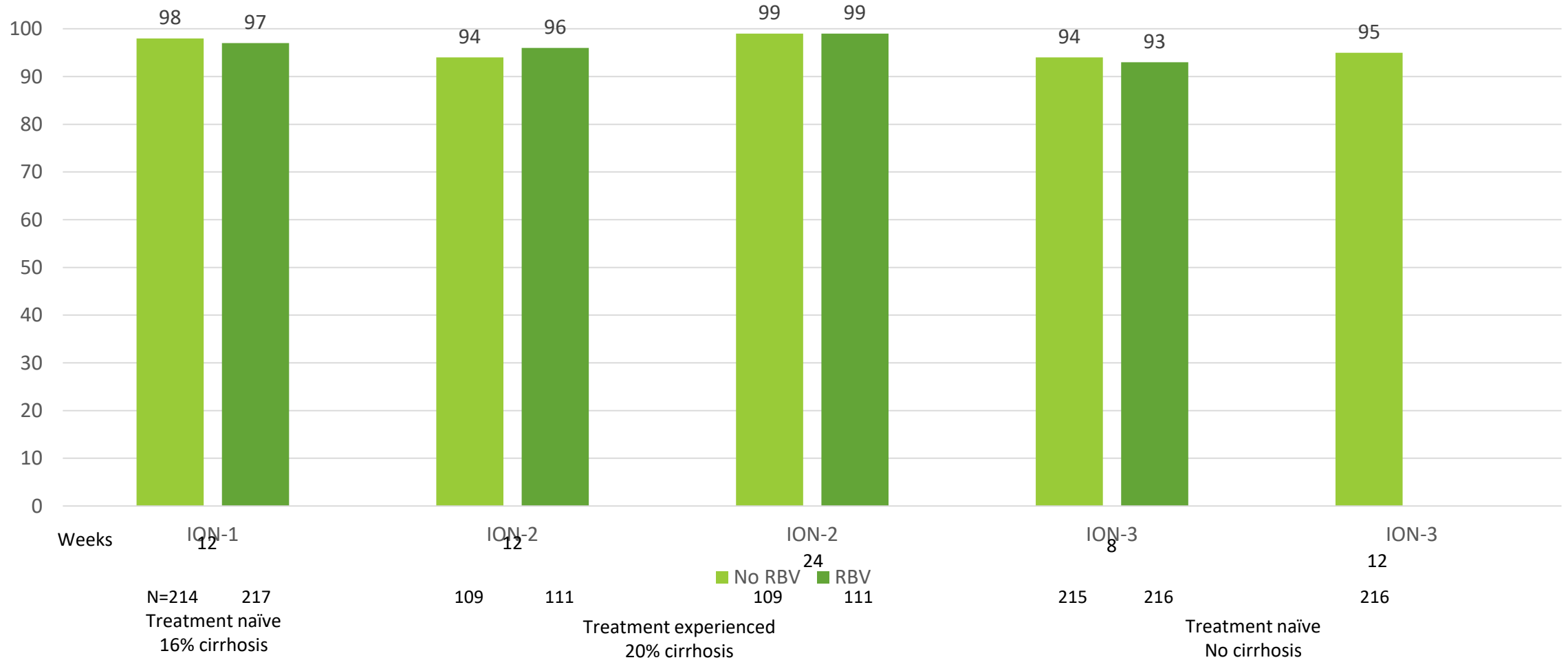


Harvoni [package insert]. Foster City, CA: Gilead Sciences, Inc.; 2016.

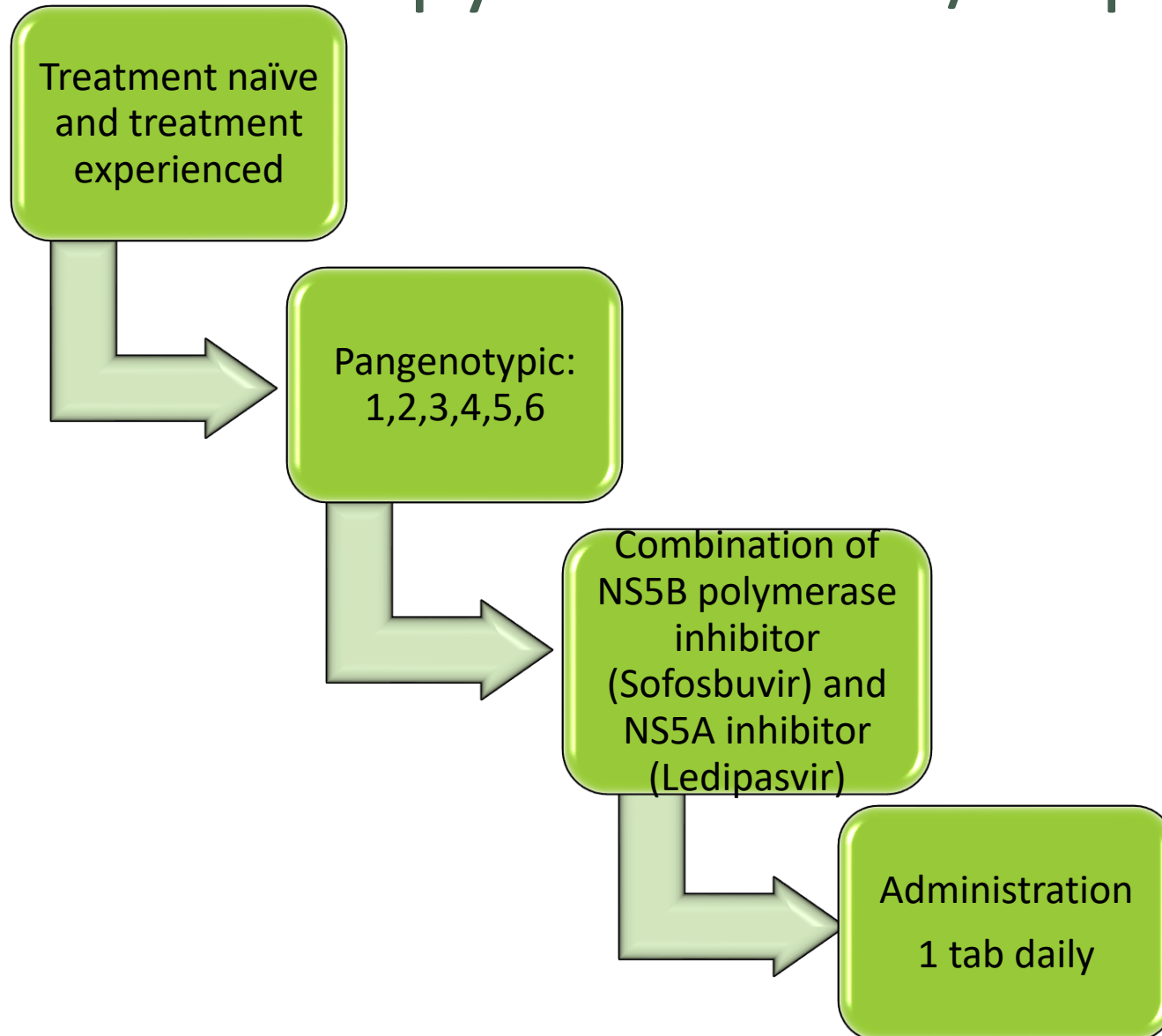


# HCV Therapy: Ledipasvir/Sofosbuvir Harvoni®

## Efficacy Summary ION Studies

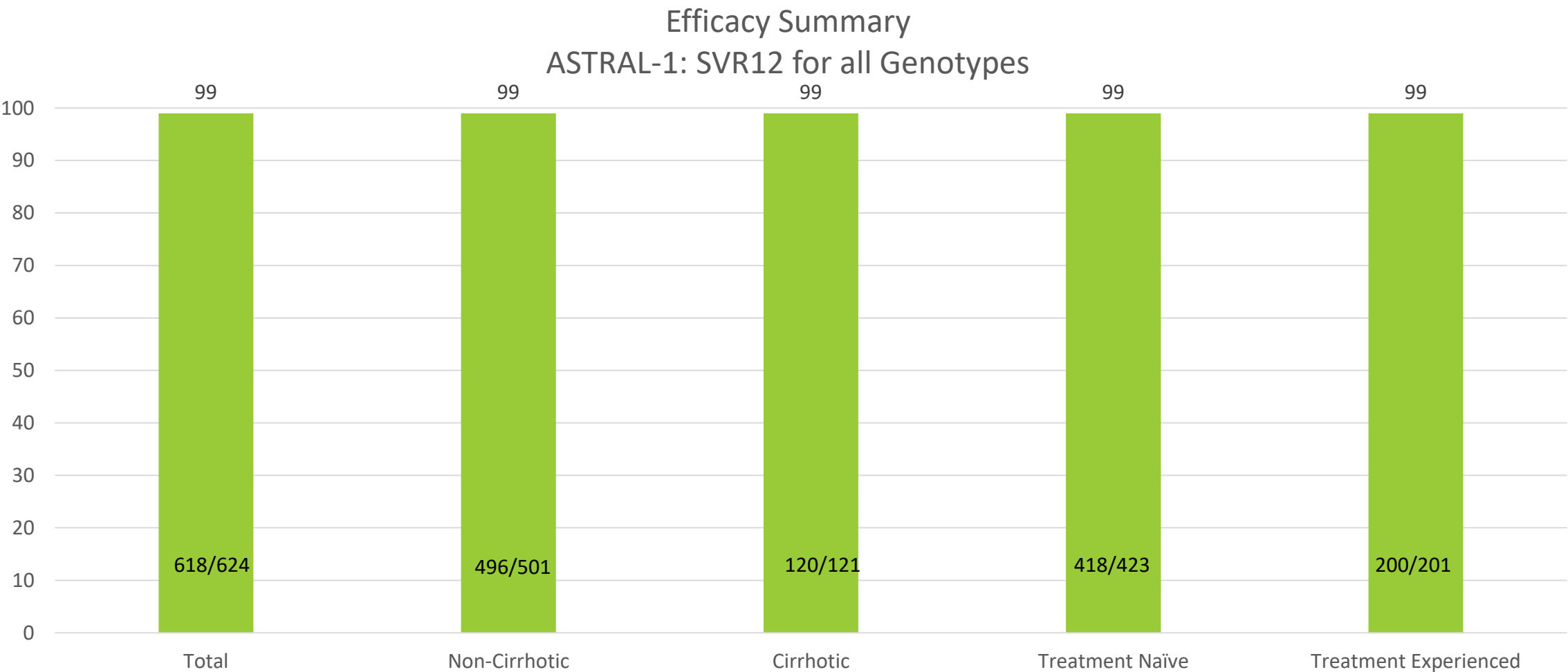


# HCV Therapy: Sofosbuvir/Velpatasvir Epclusa®



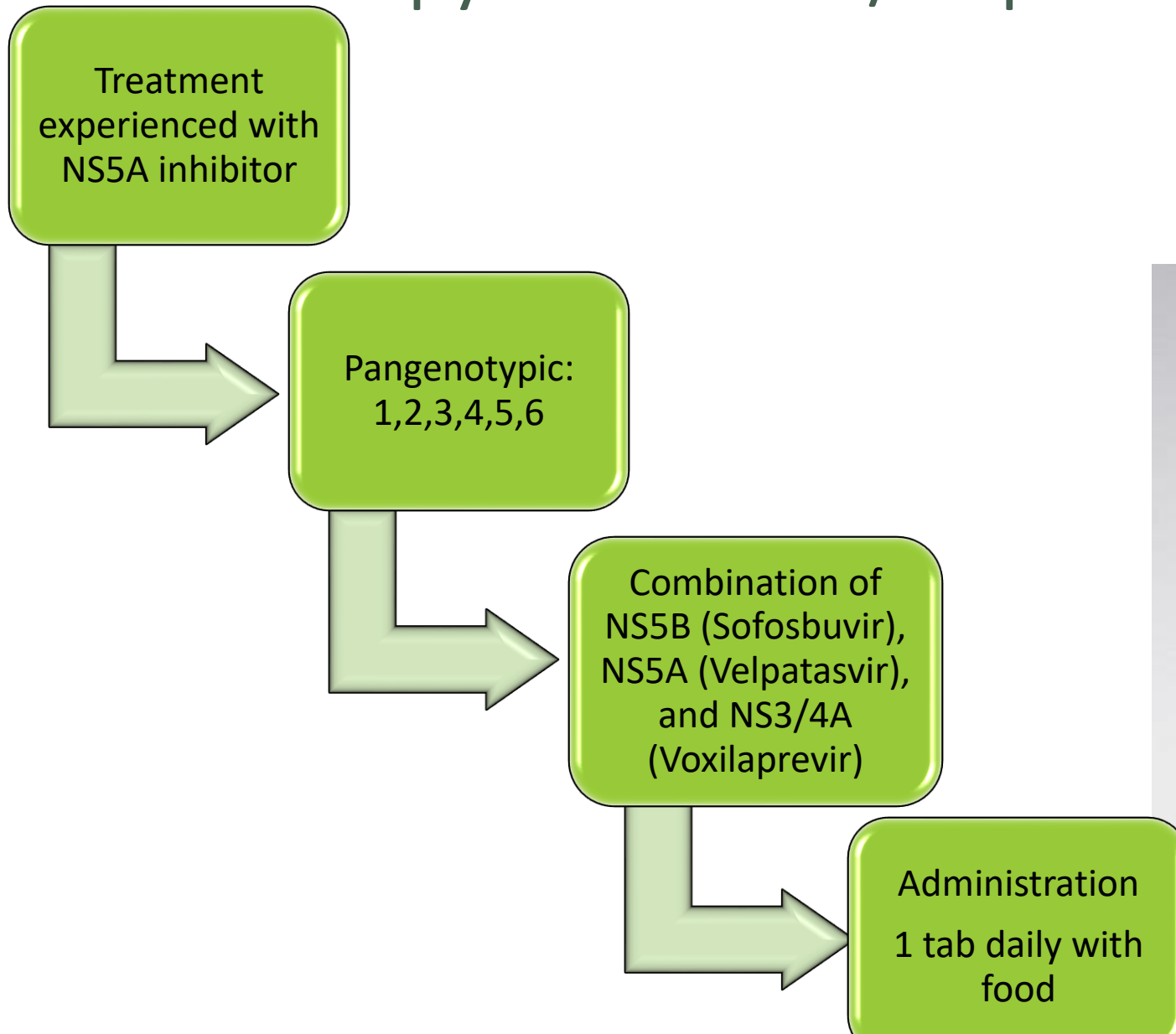
Epclusa [package insert]. Foster City, CA: Gilead Sciences, Inc.; 2016.

# HCV Therapy: Sofosbuvir/Velpatasvir Epclusa<sup>®</sup>



Feld, AASLD, 2015, LB-2. Feld JJ, et al. N Engl J Med. 2015. DOI: 10.1056/NEJMoa1512610

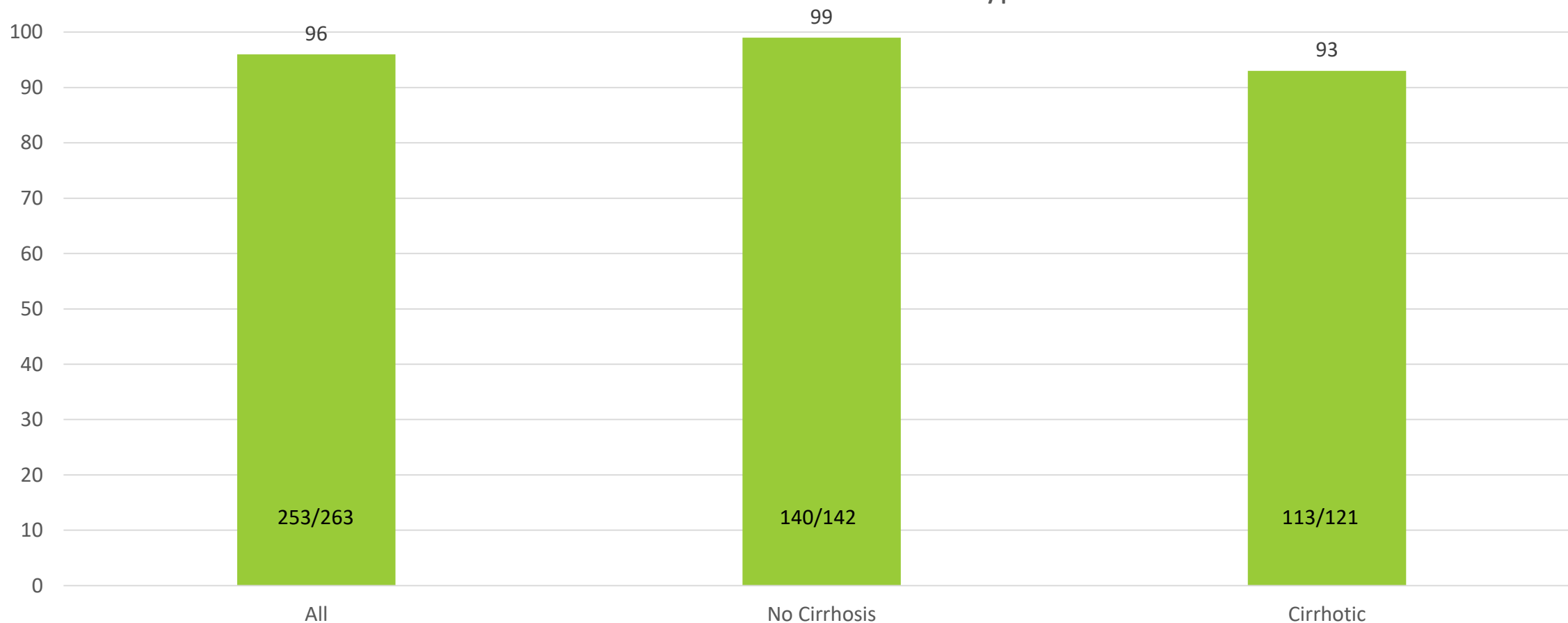
# HCV Therapy: Sofosbuvir/Velpatasvir/Voxilaprevir Vosevi®



Vosevi [package insert]. Foster City, CA: Gilead Sciences, Inc.; 2017

# HCV Therapy: Sofosbuvir/Velpatasvir/Voxilaprevir Vosevi®

Efficacy Summary  
POLARIS-1: SVR12 for all Genotypes



# HCV Therapy: Glecaprevir/Pibrentasvir Mavyret®

Treatment  
experienced with  
NS5A inhibitor

Pangenotypic:  
1,2,3,4,5,6

Combination of  
NS3/4A protease  
inhibitor  
(Glecaprevir), and  
NS5A inhibitor  
(Pibrentasvir)

Administration  
3 tabs daily with  
food

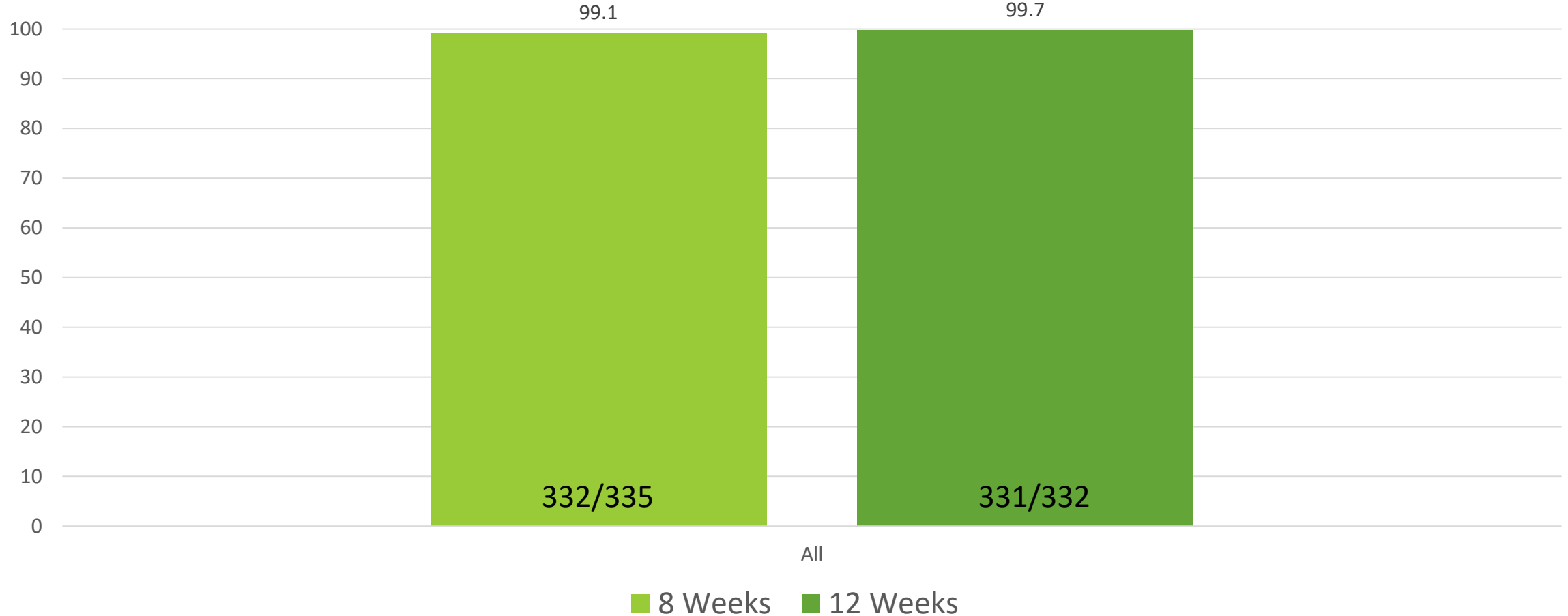


Mavyret [package insert]. North Chicago, IL: AbbVie, Inc.; 2017

# HCV Therapy: Glecaprevir/Pibrentasvir Mavyret®

## Efficacy Summary

ENDURANCE-1: SVR12 for GT 1 Non-cirrhotic



# Summary

## Side effect and Adverse Reactions of DAAs

- Well tolerated by most patients
- Most common
  - Headache
  - Fatigue
  - Nausea
  - Diarrhea
  - Muscle weakness

## Laboratory Abnormalities

- Not common
- Bilirubin elevations
  - DAAS can inhibit bilirubin transporters
- Initial slight increase in ALT
- Anemia with use of ribavirin



# Drug Interactions with DAAs

- Mostly metabolized by CYP3A4.
  - Inhibitors: grapefruit, macrolides, azoles, antidepressants, CCB, protease inhibitors
  - Inducers: Anticonvulsants, barbiturates, hypoglycemics
- Transported by P-gp
  - Inhibitors: Amiodarone, atorvastatin, carvedilol, digoxin, nifedipine, verapamil
  - Inducers: Aspirin, cyclosporine
- Avoid herbals: St. John's Wort and milk thistle (2C9)
- Acid suppressive therapy
  - Greatest concern with Velpatasvir (Epclusa<sup>®</sup> and Vosevi<sup>®</sup>)
  - Counseling point: avoid PPIs while on treatment
    - May take one dose of H2 antagonist at same time as daily dose

# Summary

- Hepatitis C is an infectious disease that affects the liver that may ultimately lead to cirrhosis, hepatic carcinoma and death
- New treatments highly efficacious with minimal side effects
- Currently may be cost prohibitive but more information forthcoming and in poster presentation

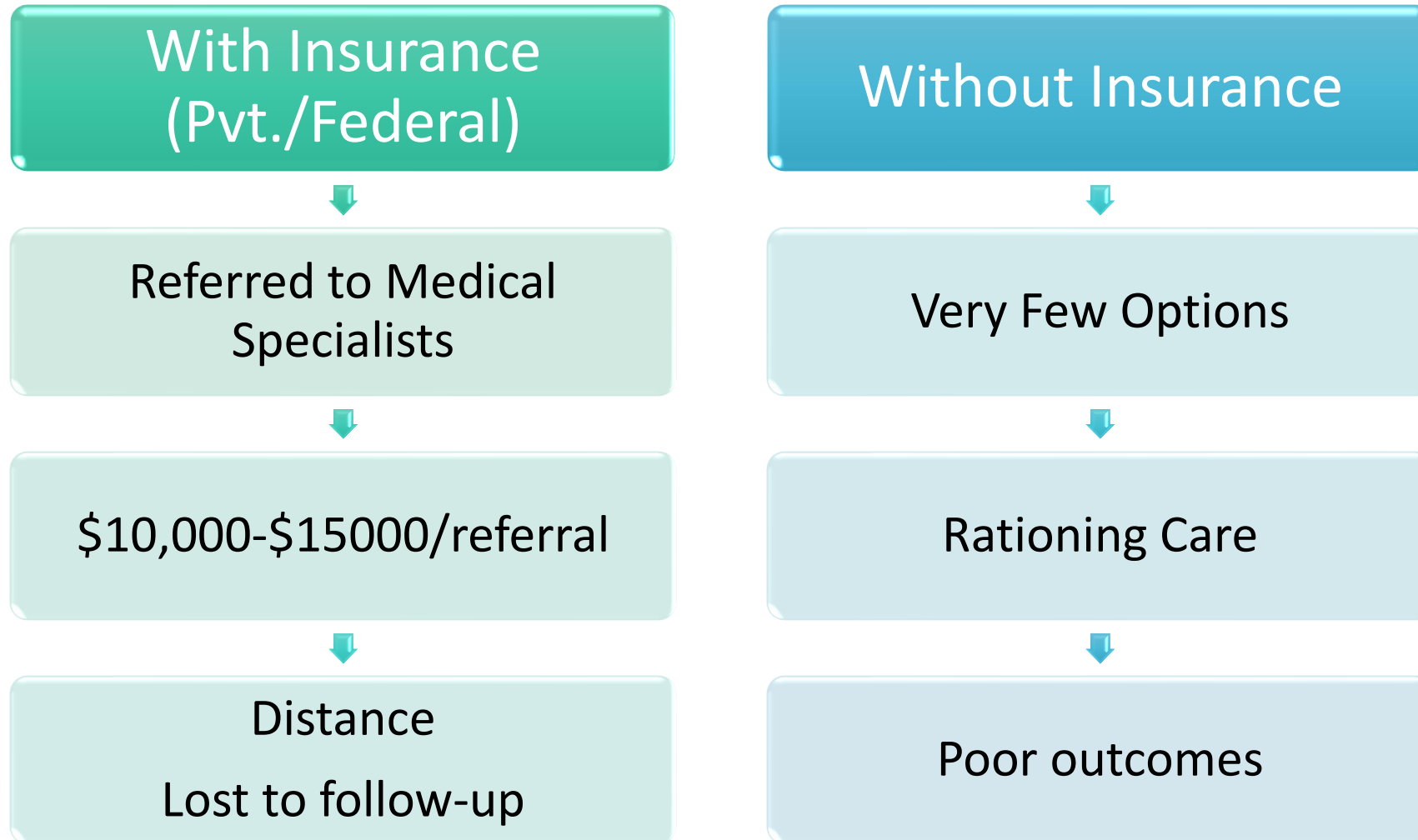
# Summary

- Treatment algorithm available:
  - **American Association for The Study of Liver Diseases**
    - <https://www.aasld.org/publications/practice-guidelines-0>
  - **Project ECHO Training**
  - **University of Liverpool**
    - <https://www.hep-druginteractions.org/>
    - Most comprehensive source available

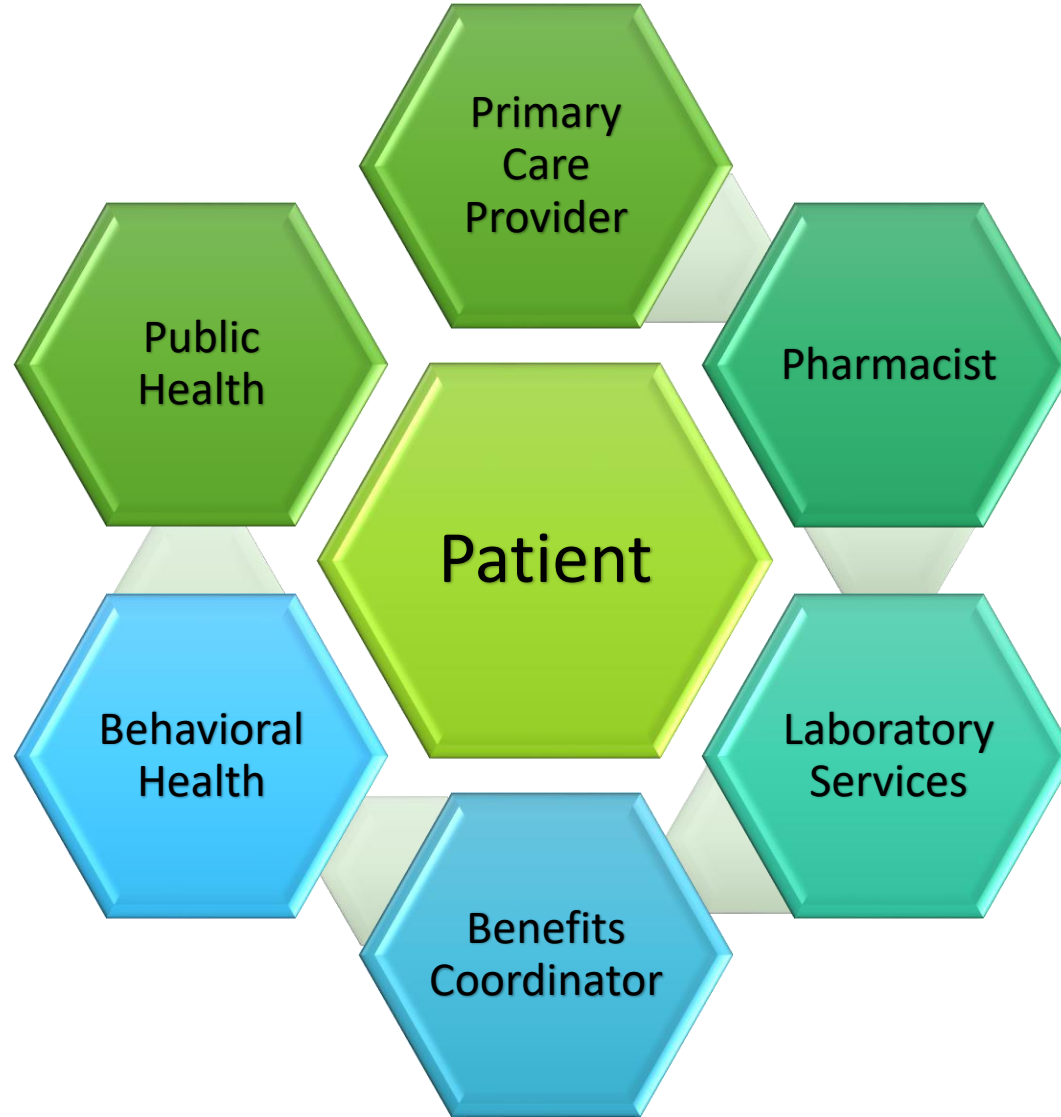
# Establishing a pharmacy managed HCV Clinic



# Prior to HCV Clinic



# Inter-collaborative Approach



# Identifying Patients with Hepatitis C

iCare

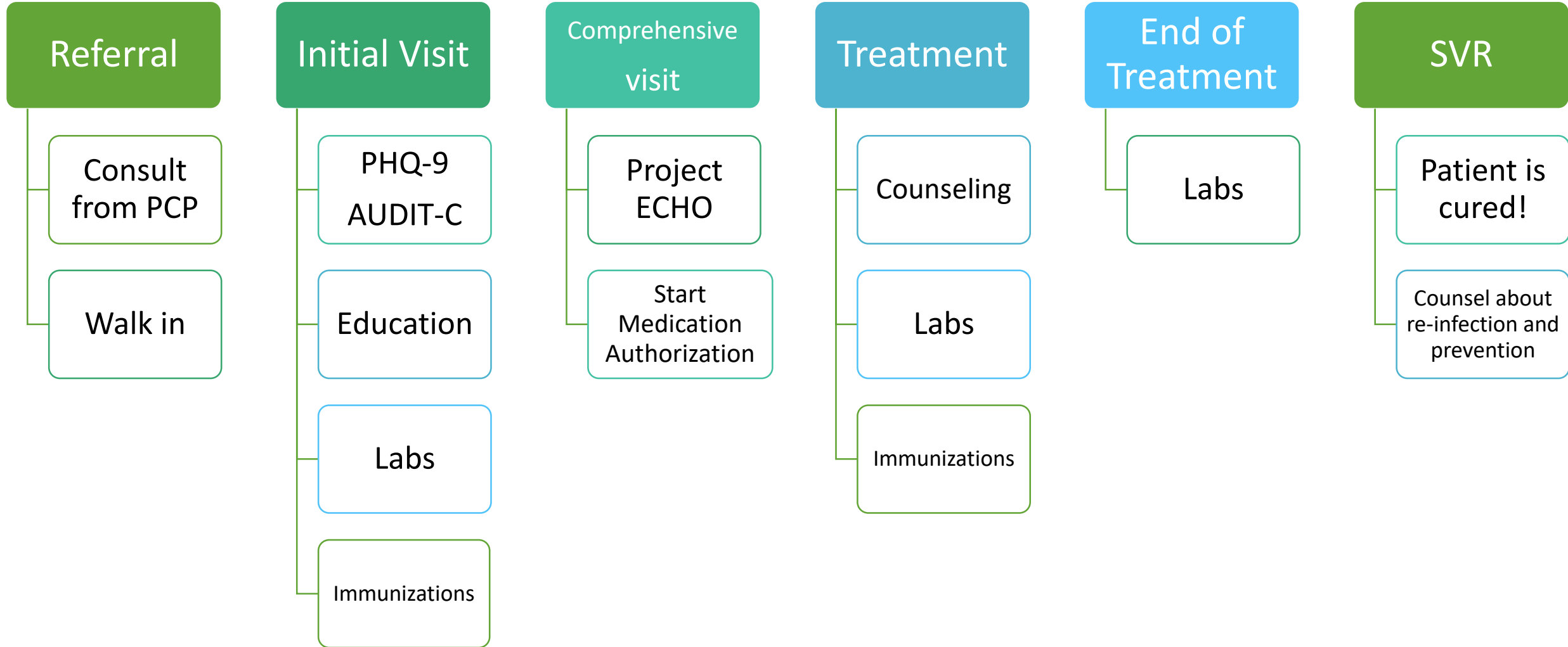
168 patients

- 25% screening rate

VGEN

155 patients

# EHR Documentation





# Consult Template

Template: HCV Consult Pharmacy Demo

=====

Quentin N. Burdick Memorial Health Care Facility  
HEPATITIS C TREATMENT PROGRAM

=====

PCP:

DEMO, PATIENT ARCELAY(00-00-03) is a 10 year old FEMALE being referred to the pharmacy managed hepatitis C treatment clinic at the Quentin N. Burdick Memorial Health Care Facility:

ALL THE FOLLOWING MUST BE ANSWERED BEFORE PATIENT WILL BE ACCEPTED INTO THE CLINIC.

Does the patient have a history of compliance and adherence with prescribed treatment plans?  
\* ☐ Yes ☐ No

Do you feel that the patient is ready to begin treatment for chronic HCV?  
\* ☐ Yes ☐ No

Does patient have recent labs within the last 3 months to establish a baseline prior to initiating treatment? Please see the Hepatitis C menu in the outpatient lab menu for a full list of required labs necessary for initiating treatment.  
\* ☐ Yes ☐ No

Do you want us to order required labs for this patient on your behalf? If not, lab orders will be sent to provider to sign off on.  
\* ☐ Yes ☐ No

Please evaluate and enroll patient into the program and treat for hepatitis c.

\* Indicates a Required Field   Preview   OK   Cancel

# EHR Note Templates

- ☐ HCV Treatment Program: Initial Visit with Patient  
-----
- ☐ HCV Treatment Program: Comprehensive Visit with Patient  
-----
- ☐ HCV Treatment Program: Initiation of Treatment Visit with Patient  
-----
- ☐ HCV Treatment Program: Continuation of Treatment Visit with Patient  
-----
- ☐ HCV Treatment Program: End of Treatment Visit with Patient  
-----
- ☐ HCV Treatment Program: Three Months Post Completion of Treatment  
-----

# EHR Note Templates

Template: HCV

☒ =====

Quentin N. Burdick Memorial Health Care Facility  
HEPATITIS C TREATMENT PROGRAM  
=====

PCP:

DEMO, PATIENT ARCELAY(00-00-03)

CHIEF COMPLAINT: Invalid visit

OBJECTIVE:

132/64 (Nov 20, 2017@13:42) 98 (Nov 20, 2017@13:42) Qualifiers: 80 (Nov 20, 2017@13:42) 16 (Nov 20, 2017@13:42) 97.6 F [36.4 C] (Nov 20, 2017@13:42)  
120.00 lb [54.48 kg]

☒ HCV Treatment Program: Initial Visit with Patient  
=====

☐ Patient is 10 year old FEMALE referred to the HCV clinic for hepatitis c treatment. Labs and vaccinations were reviewed and ordered if necessary. Patient is counseled and educated on the disease, labs and vaccination required, the process of treatment and all other requirements before initiating. All concerns and questions by the patient are answered and explained.

Patient verbalized understanding.

Project Echo presentation is tentatively scheduled for:

Patient's insurance is .

All documents are requested from patient if necessary to enroll in patient assistance program.

Additional Counseling points or notes:

Patient's best contact number is .

PHQ-9 Questionnaire

Over the last 2 weeks, how often has the patient been bothered by any of the following problems?

0: Not at all  
1: Several days  
2: More than half the days  
3: Nearly every day

1. Little interest or pleasure in doing things.   
2. Feeling down, depressed, or hopeless.   
3. Trouble falling or staying asleep, or sleeping too much.   
4. Feeling tired or having little energy.   
5. Poor appetite or overeating.

All None \* Indicates a Required Field Preview OK Cancel

# Hepatitis C Labs Order Menu

## HEPATITIS C LAB PANEL

Hep C Screen  
IF POSITIVE OR KNOWN HISTORY OF HCV DO  
HCV RNA QT REFLEX GENOTYPE

Hep C PCR QUANT

Lab values required within past 3 months

Chem 14  
CBC/Auto Diff  
Fibrotest  
PT/INR  
Anemia Panel  
Vitamin D  
Alpha Fetoprotein Tumor Marker

HIV Screen  
Hepatitis A Total Antibody  
Hepatitis B Surface Antibody  
Hepatitis B Core Antibody  
Hepatitis B Surface Antigen

Must have at least 2 UDS in last 12 months  
at least 3 months apart  
Urine Drug Screen  
Pregnancy Test

Hepatitis C Order Set Initial Tests

Hepatitis C 4 week ETR and SVR labs

Hepatitis C 8 week labs  
All other labs



# Hepatitis C Labs Order Set

Hepatitis C Order Set Initial Tests

Hepatitis C 4 week ETR and SVR labs

Initial Tests

☐ Chem 14

☐ CBC with autodiff

☐ Display Name Missing

☐ PT/INR

☐ Anemia Panel

☐ Vitamin D

☐ Alpha Fetoprotein Tumor Marker

☐ Display Name Missing

☐ HIV AB SCREEN

☐ HEPATITIS A TOTAL

☐ HEPATITIS B SURFACE ANTIBODY

☐ HEPATITIS B CORE ANTIBODY

☐ Hepatitis B Surface Antigen

Stop Order Set

Order a Lab Test

Available Lab Tests

CHEM 14

CHEM 14

CHEM 8

CHEM CONTROL <VITROS

CHEM MASTER LIST

CHL/CG APTIMA SHL

CHL/GC APTIMA <CHLAMY

CHLAMYDIA ABS,IGG&IGM

CHLAMYDIA APTIMA

CHEM 14

Collect Sample

ORANGE/SERL

Specimen

SERUM

Urgency

ROUTINE

Enter order comment:

Collection Type

Send Patient to Lab

Collection Date/Time

T

How Often?

ONCE

How Long?

Clinical Indication:

CHEM 14 ORANGE/SERUM SP ONCE

Accept Order

Quit

# Managing Patients

Snapshot of stage in treatment process drop down menus (these can be adjusted)

White: Unable to contact		
Green Ready to present to ECHO		
Blue Started treatment		
Yellow Pending Appt need labs		
Red UDS Positive		
Purple Medication Approval Pending		
Orange Completed treatment, pending SVR labs		
Grey CURED		

# Patient Panel



NICE Project- Northern Tier Initiative for Hep C Elimination

## Hepatitis C Patient Panel List

Developed by: LT Neelam 'Nelly' Gazarian, PharmD. QNBMHCF, Belcourt ND

with LCDR Jonathan Owen, PharmD.

email: neelam.gazarian@ihs.gov, jonathan.owen@ihs.gov

NICE Project- Northern Tier Initiative for Hep C Elimination

## Hepatitis C Patient Panel List

Developed by: LT Neelam 'Nelly' Gazarian, PharmD.

with LCDR Jonathan Owen, PharmD.

email: neelam.gazarian@ihs.gov, jonathan.owen@ihs.gov

Patient Name	ID	DOB	Patient Status	Age in 2017	Date for Next	AST/SGOT	ALT SGPT	Platelets	APRI	APRI Stage	FIB 4	FIB 4 Stage Calc	Viral Load	Genotype	Labs ordered	Notes
					Appt											
Smith, Jane	12345	3/3/1986	Pending Appt need labs	31	10/2/2017	140	180	250	1.4	3	1.293938	1	3800000	1a	<a href="#">Sheet11A1</a>	HARVON
Smith, s	12346	1/1/1961	Already started treatment	56	11/5/2017	48	48	299	0.401337793	1	1.2975899	1	4100000	1a or 1b	<a href="#">Sheet21E2</a>	FO, Exp
Joe, j	12347	1/2/1981	May need Beh Health Consult	36	10/7/2017	42	60	348	0.301724138	1	0.56091483	1	200	unknown	<a href="#">Sheet31A1</a>	Medic
Joe, john	12348	1/3/1977	Pending Appt need labs	40	10/2/2017	28	36	297	0.235690236	1	0.6285073	1	18000000	2b	<a href="#">Sheet41A1</a>	Expan
Smith, m	123	1/4/1987	Ready to present to ECHO	30	10/13/2017	30	41	239	0.313807531	1	0.58810203	1	200		<a href="#">Sheet51A1</a>	Expan
Smith, a	1234	1/5/2015	Pending Appt need labs	2	11/14/2017	484	624	223	5.426008969	3	0.17377136	1	370000	1a or 1b	<a href="#">Sheet61A1</a>	Medic
Smith, b	111	1/6/1933	Purple Medication Approval Pending	84	10/15/2017	96	104	169	1.420118343	3	4.67893643	3		1a or 1b	<a href="#">Sheet71A1</a>	
Smith, c	1112	1/7/1945	Ready to present to ECHO	72	11/16/2017	50	70	333.5	0.374812594	1	1.2902018	1	430000	1a	<a href="#">Sheet81A1</a>	echo S
Smith, d	1549	1/8/1965	Already started treatment	52	10/17/2017	34	31	195.6	0.434560327	1	1.62342625	3	2600	1	<a href="#">Sheet91A1</a>	Medic
luck, donald	1456	2/8/2017	Medication Approval Pending	0	9/26/2017	55	41	277	0.496389892	1	0	1	920000	1a or 1 b	<a href="#">Sheet101A1</a>	
Mouse, Mickey	78946	8/15/1955	Already started treatment	62	8/1/2017	38	42	177	0.536723164	1	2.05389092	3	9200000	2b	<a href="#">Sheet111A1</a>	2b EPC
mouse, Minnie	4568	8/8/1999	Pending Appt need labs	18		105	133	212	1.238207547	3	0.77303672	1			<a href="#">Sheet121A1</a>	Expan
an, peter	45566	1/12/1966	Already started treatment	51		43	56	345	0.311594203	1	0.84942595	1	4400000	1	<a href="#">Sheet131A1</a>	1a or
Poppins, Mary	4848	5/9/1988	Completed treatment, pending SVR labs	29		47	67	211	0.556872038	1	0.78917987	1		#REF!	<a href="#">Sheet141A1</a>	Harvo
Wonka, Willy	89621	5/9/1944	Cannot contact	73			37		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#REF!	<a href="#">Sheet151A1</a>	no ins
Free, Willy	4576	3/8/1992	May need Beh Health Consult	25		50	110	244	0.512295082	1	0.4884542	1	4000000	3	<a href="#">Sheet161A1</a>	medic
Joe, a	4562	5/9/1985	Pending Appt need labs	32		88	216	314.5	0.699523052	1	0.60923539	1	3600	3	<a href="#">Sheet171A1</a>	expan
Joe, b	78956	12/12/1986	CURED	30					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	15000	3	<a href="#">Sheet181A1</a>	no ins
Joe, c	7778	1/18/1955	Cannot contact	62		48	54	230	0.52173913	1	1.76079263	3			<a href="#">Sheet191A1</a>	expan
Joe, d	98686	9/8/1998	Ready to present to ECHO	19		129	116	78	4.134615385	3	2.91755945	3	120000		<a href="#">Sheet201A1</a>	no ins
Joe, e	8587	8/7/1965	Medication Approval Pending	52		95	150	204	1.164215686	3	1.9772025	3		1	<a href="#">Sheet211A1</a>	medic
Joe, f	78456	12/21/1949	Ready to present to ECHO	67		96	90	268	0.895522388	3	2.52982213	3			<a href="#">Sheet221A1</a>	Expan
Joe, g	32625	1/22/1961	Pending Appt need labs	56					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			<a href="#">Sheet231A1</a>	Expan

## Individual Patient Data

[illegible]



# OCTOBER 2017

NOTE:

ENTER MONTH:

ENTER YEAR:

ENTER START DAY:

[Link to Ongoing Patients](#)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01	02 Smith,Jane: 12345 doe,john: 12348	03	04	05	06	07 doe,j: 12347
08	09	10	11	12	13 smith,m: 123	14
15 smith,b: 111	16	17 smith,d: 1549	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# Navigating Insurance/Prior Authorizations

## Comprehensive Visit Clinic Notes

## Project ECHO

- Recommended regimen

## Lab Values

- Chem 14, CBC, anemia panel, Vit D, AFT, HIV, Hep A & B, pregnancy
- Viral load and genotype
- Fibrosis Score: APRI, FIB4, Fibrotest

## Abstinence requirements

- Urine drug screens and/or clinical notes

## Compliance

# Patient Assistance Program

## Gilead's Support Path

- Harvoni<sup>®</sup>, Epclusa<sup>®</sup>
- iAssist: <https://www.assistrx.com/iassist/>

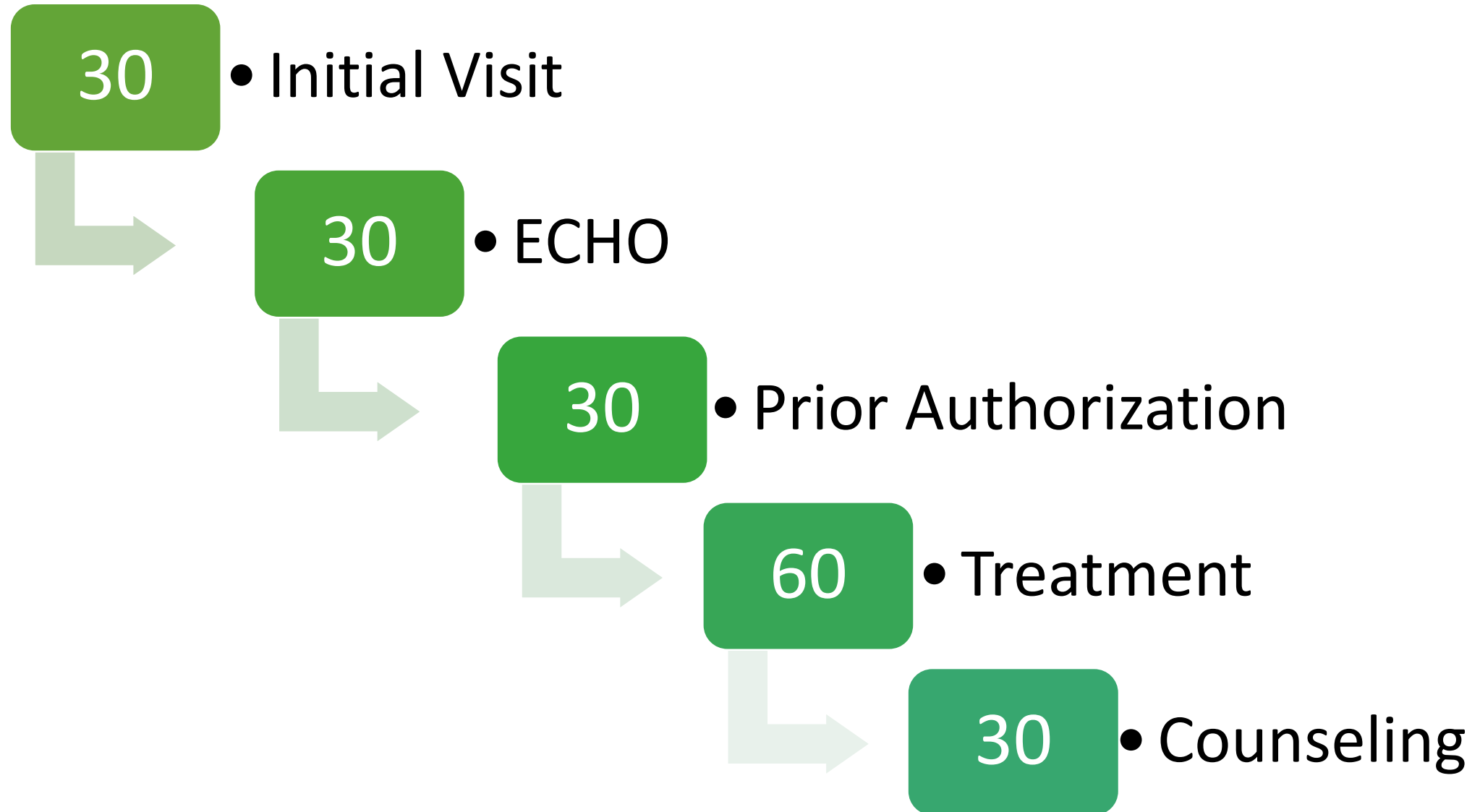
## AbbVie Patient Assistance Foundation

**Mavyret<sup>®</sup>**

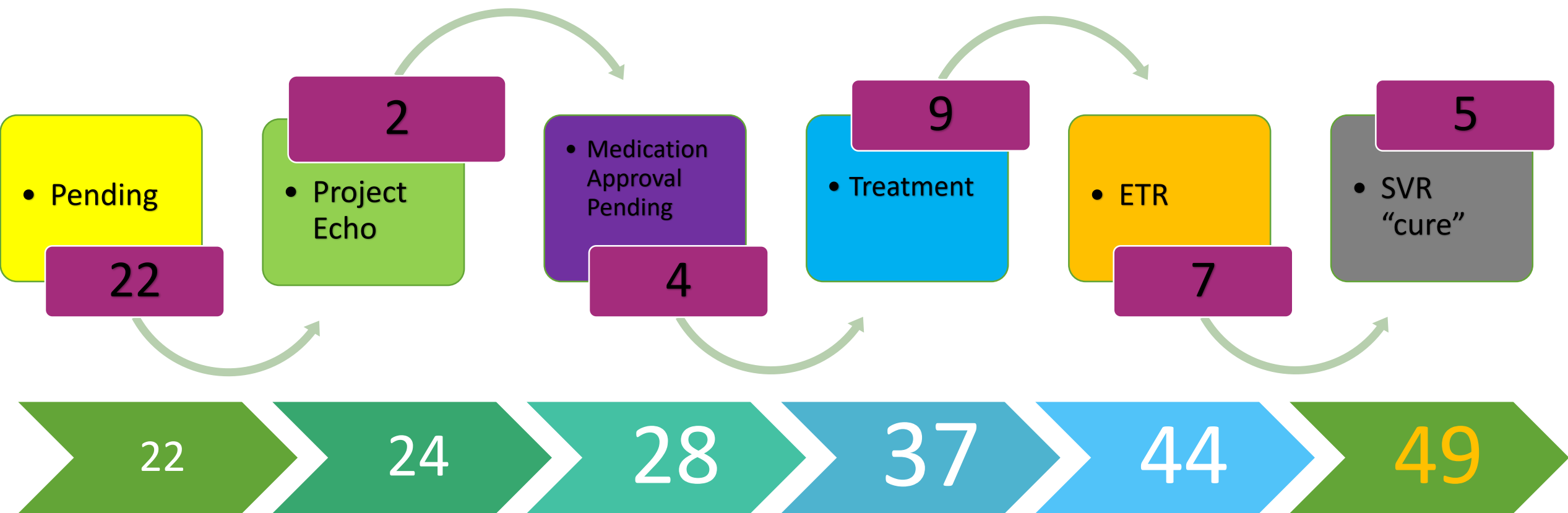
# Patient Assistance Programs

- Tribal ID card
- Income documents
  - Max income allowed differs by program
- Proof of no insurance
  - American Indians/Alaska Natives (AI/AN): Indian Health Coverage Exemption
- “American Indians and Alaska Natives (AI/ANs) and other people eligible for services through the Indian Health Service, tribal programs, or urban Indian programs (like the spouse or child of an eligible Indian) **don't** have to pay the fee for not having health coverage. This is called having an Indian health coverage exemption.”

# Time Investment and Workload (Minutes)

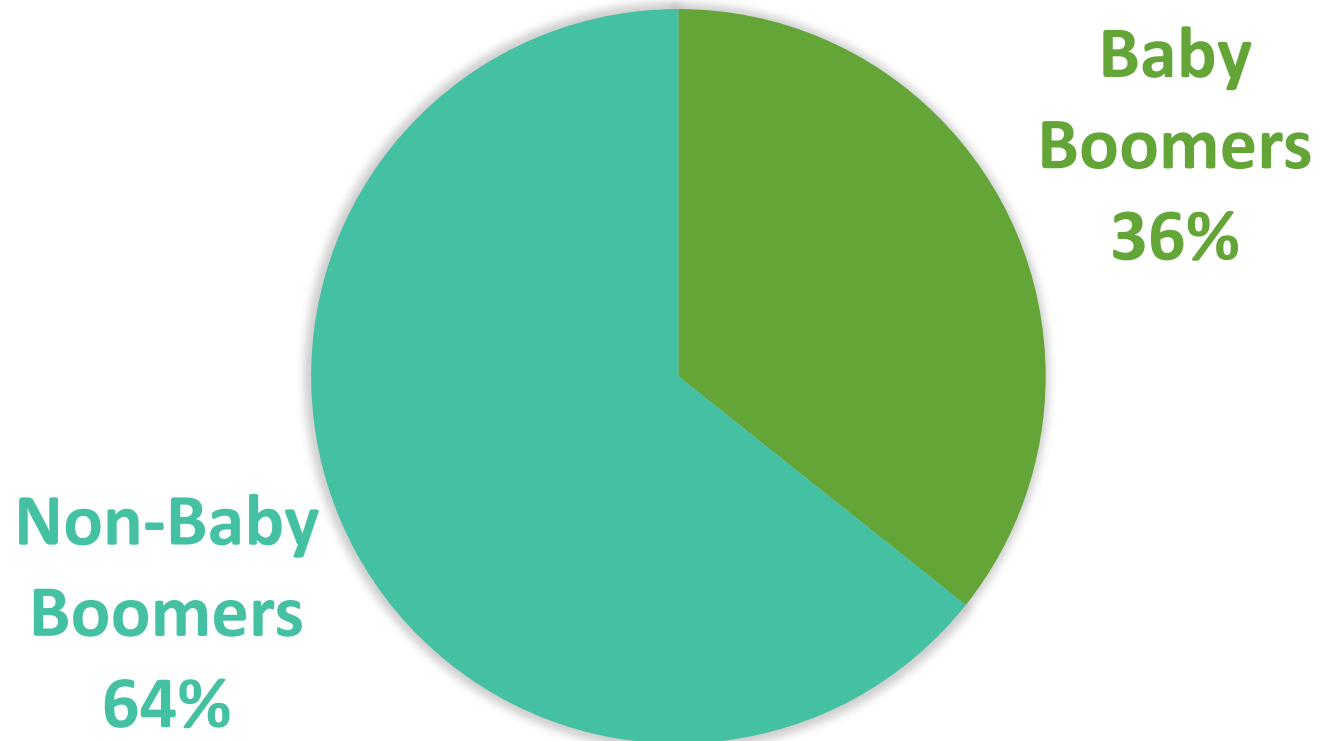


# Current Status

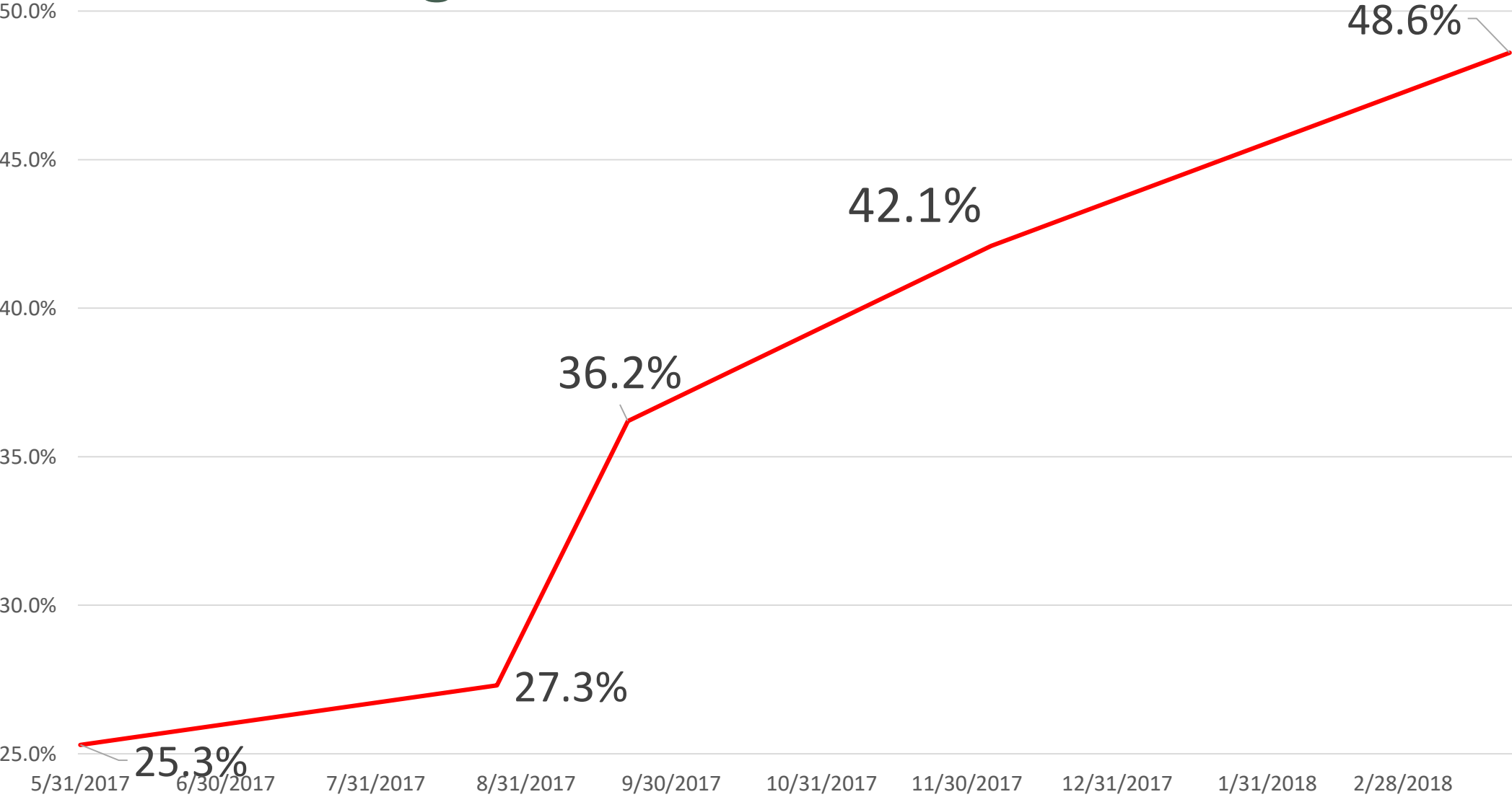


# Patients Enrolled in Clinic

## AGE DISTRIBUTION

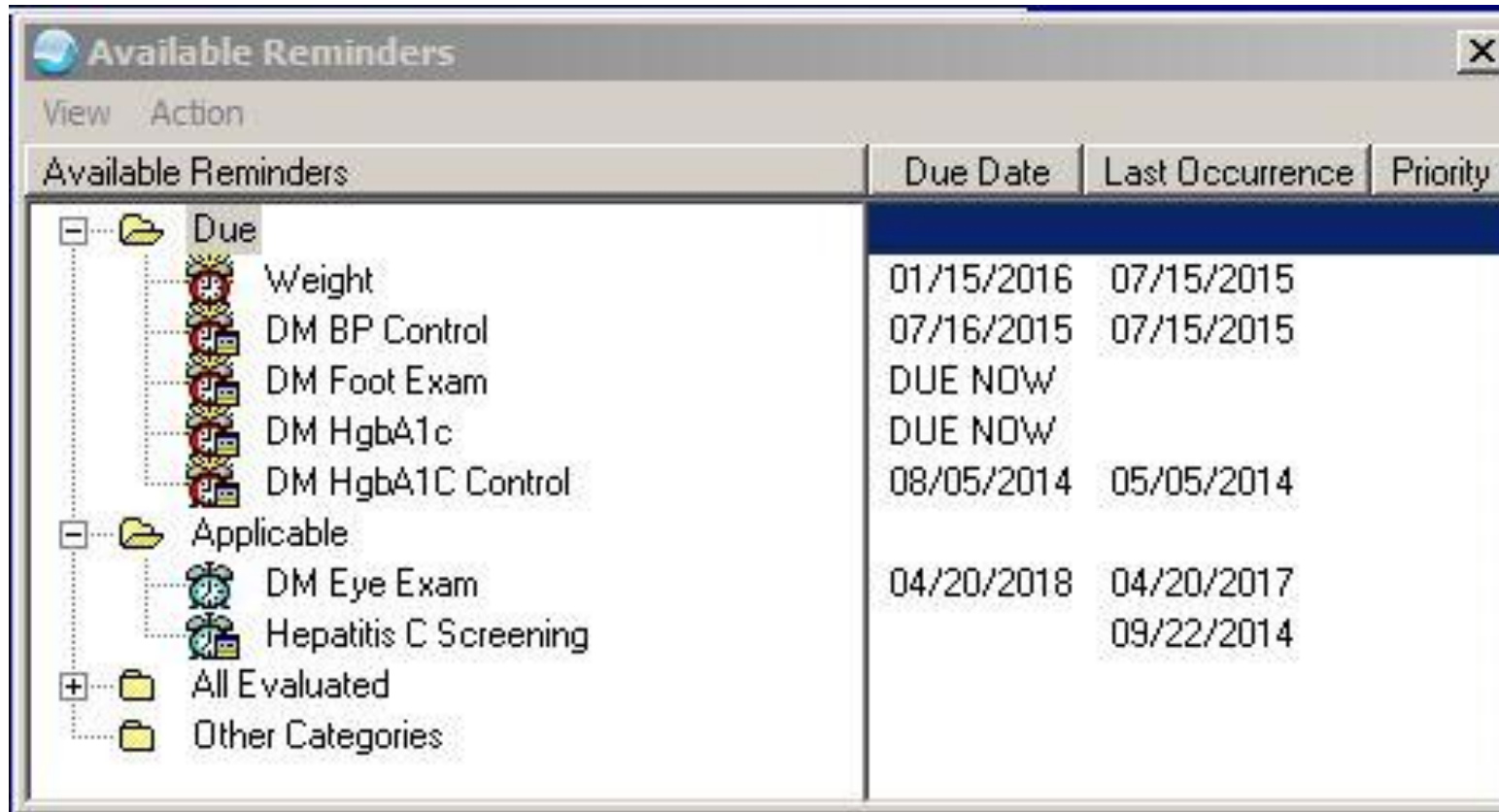


# HCV Screening Rate





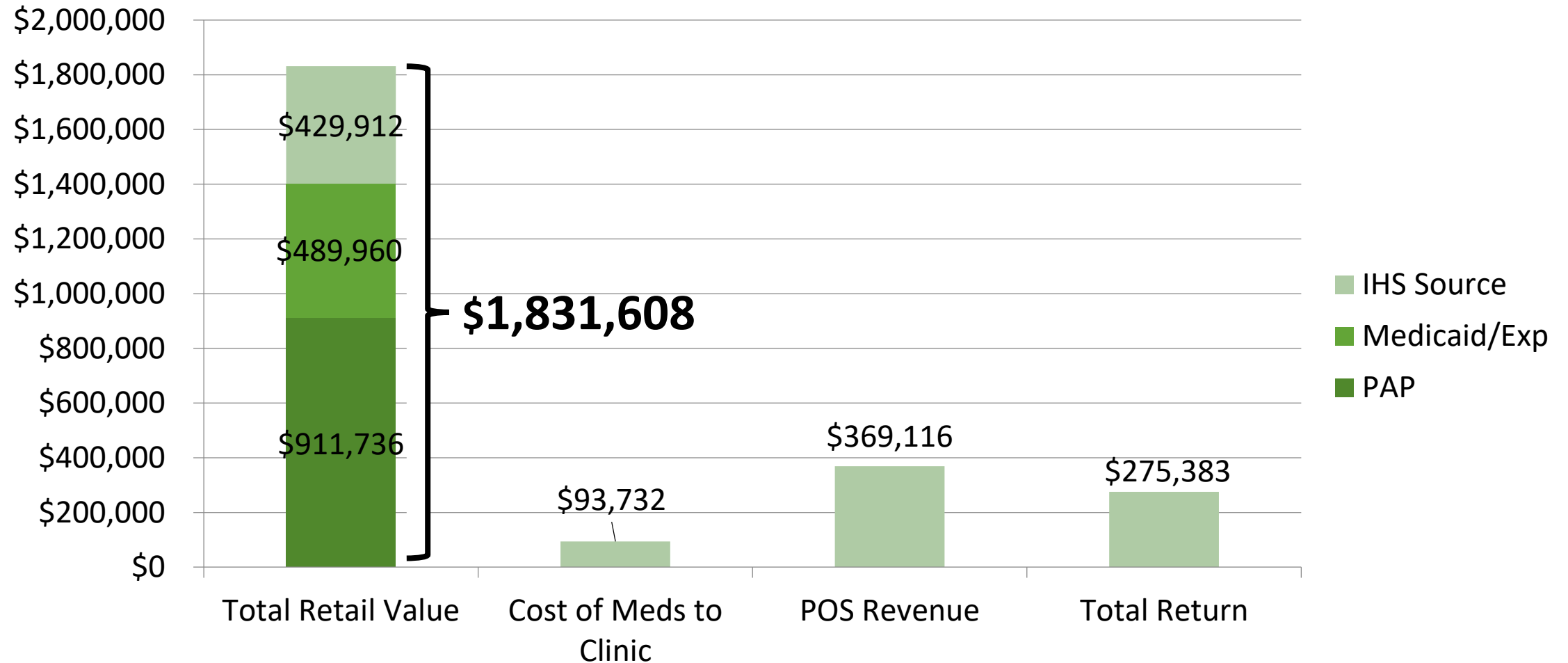
# HCV Screening Rate



The screenshot shows a software window titled "Available Reminders" with a menu bar containing "View" and "Action". The window displays a list of reminders organized into categories. The "Due" category is expanded, showing several reminders. The "Applicable" category is also expanded, showing "DM Eye Exam" and "Hepatitis C Screening". The "All Evaluated" and "Other Categories" are collapsed. The table below summarizes the data visible in the screenshot.

Available Reminders	Due Date	Last Occurrence	Priority
Due			
Weight	01/15/2016	07/15/2015	
DM BP Control	07/16/2015	07/15/2015	
DM Foot Exam	DUE NOW		
DM HgbA1c	DUE NOW		
DM HgbA1C Control	08/05/2014	05/05/2014	
Applicable			
DM Eye Exam	04/20/2018	04/20/2017	
Hepatitis C Screening		09/22/2014	
All Evaluated			
Other Categories			

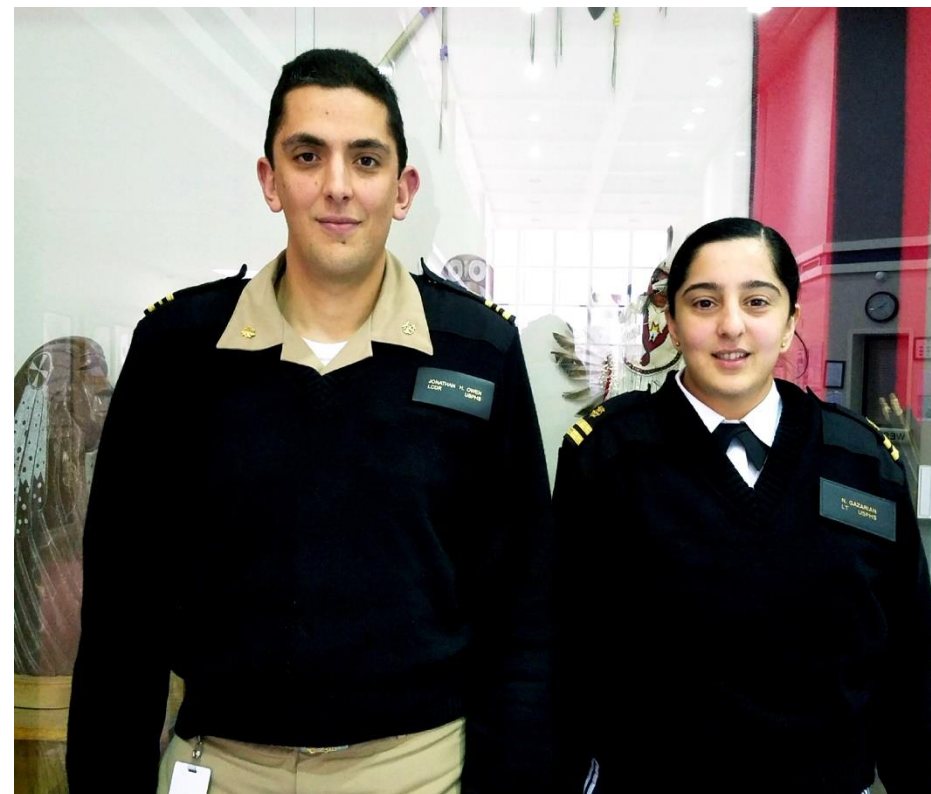
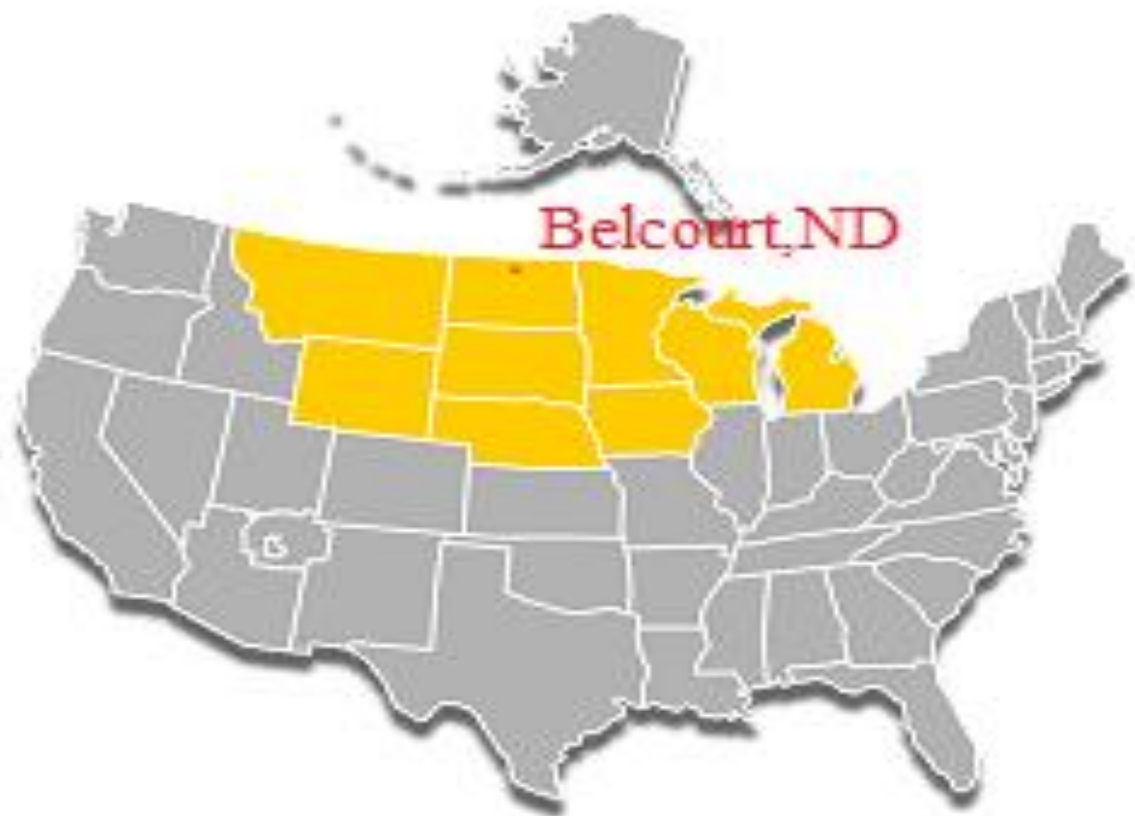
# Cost Analysis: Cumulative





# NICE PROJECT

- The mission of the NICE (Northern Tier Initiative for Hep C Elimination) Project is to provide comprehensive and patient-centered support for clinics with or in process of introducing HCV services at their healthcare facilities in the Northern Tier Areas including but not limited to Great Plains, Billings and Bemidji.

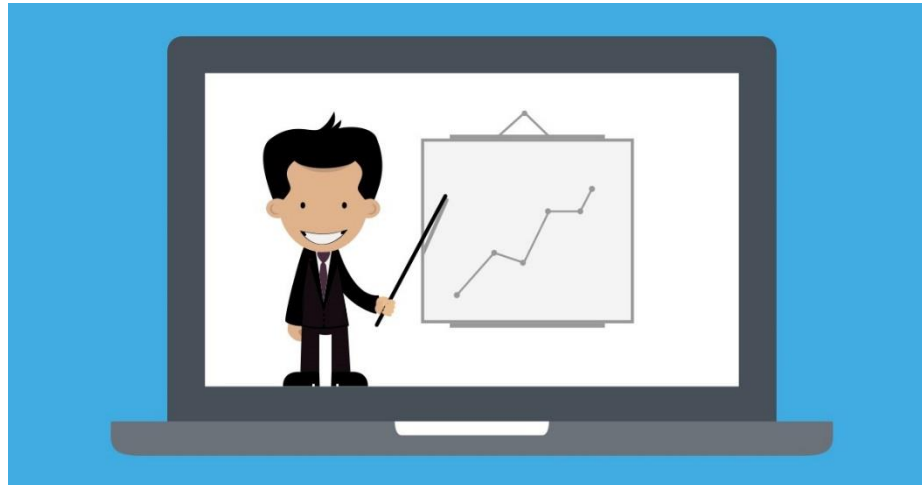


# Northern Tier Hepatitis C – ECHO Training



# Recorded Webinars

- <http://www.npaihb.org/hcv/#clinical-resources>
  - How to create an iCare panel
  - How to create a quick order menu for required labs
  - How to use the NICE patient management tool
  - Hepatitis C clinic workflow
  - Medicaid Letter, appointment cards





# ND Medicaid and Expansion Success Story



**Drop minimum fibrosure  
score requirements**



**No NS5A resistance test  
required unless prescribing  
Zepatier®**



**12-months abstinence  
requirements remains**



# Patient's Story

- First patient enrolled in HCV clinic summer of 2017, achieved SVR mid-November  
*“I have been waiting for this for so long. I know I have made some mistakes in the past, but I had started to turn my life around. I am very thankful to them for not being judgmental and for treating me with respect. I am finally able to start a family. God bless you!”*
  - First patient to attain SVR in Belcourt HCV clinic

# Acknowledgement

Quentin N. Burdick Memorial Health Care Facility Eliminate Hepatitis C Team:

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- ◆ LCDR Jonathan Owen, PharmD. USPHS. AE-C, CTTS
- ◆ Jordan Walker, PharmD.

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- Brigg Reilley, National HIV/AIDS Program
- David Stephens, BSN, RN, Case Manager for the Northwest Portland Area Indian Health Board.

# Questions



# Thank you

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